Modern packaging

Nominated for *Packaging's Hall of Fame*. Story on Page 86

May 1950

"OLD STUFF!"

Non-inflammable

CELLU-LOK

an EMULSION adhesive bonds

MOISTURE-PROOF CELLOPHANE to CHIPBOARD

ACETATE to ENVELOPE STOCK or CHIPBOARD

3 YEARS AGO National proved that CELLU-LOK could replace lacquer types. Unprecedented acceptance followed. CELLU-LOK is a white fluid RESYN® emulsion. Dries to a clean, colorless, transparent film. Thins with water. Eliminates inflammable solvents. Helps prevent bleeding of inks and penetration. Reduces drying time from days to several hours. Tacks quickly. Non-blocking.

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EVERY TYPE OF ADHESIVE FOR EVERY INDUSTRIAL USE

Phoenix Metal Cap Co. Chicago & Brooklyn

Modern packaging

Vol. 23 No. 9 May 1950

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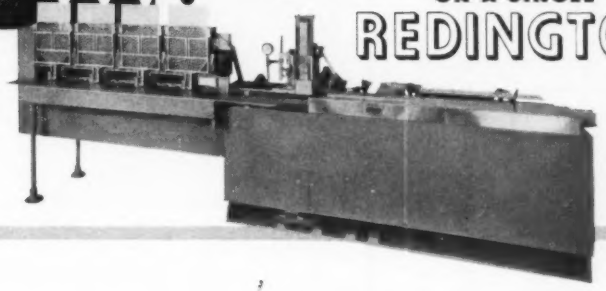
PACKAGED FOR
McCORMICK & CO., INC.

4 colors / 4 bottles } PER CARTON

ON A SINGLE REDINGTON



To aid the American housewife to make her meals and snacks more colorful and appealing . . . McCormick & Co., Inc., Baltimore, Md., manufactures a line of U.S. Certified Food Colors . . . uniquely packed in 1/4 fluid ounce vials with a tap-a-drop opening. Four tiny bottles, each containing a different color, go to market in a single carton.

For proper handling before the cartoning operation, it is necessary for McCormick to accumulate a large number of filled and capped bottles of the various colors. They must be stored (with the colors kept *separate*) in such a way as to be in easy readiness . . . for insertion in the four permanent color magazines constructed on the Redington machine.

Redington's solution: To assure continuous, economical re-stocking of the four permanent magazines, Redington engineers designed special metal trays with a hinged side. Trays are, in effect, *auxiliary* magazines. Bottles to be placed in permanent magazines are stacked standing upright in one layer in these auxiliary magazines. It is then a simple matter for an attendant to insert an entire filled tray in the permanent magazine on the machine. The hinged side is opened and the bottles feed down into the permanent magazine which, at the proper time, automatically feeds them down onto the article conveyor.

"Colorful" Operation—Smooth, Accurate, Sure

McCormick cartons are stacked in carton magazine. Redington machine feeds bottles from their magazines and assembles one of each color in pocket of article conveyor. Carton is then fed from its magazine, expanded, four bottles are inserted into carton, and carton is closed by tucking in the end flaps. Machine also presses a code number in each carton.

Speed: 100 per minute—that's 400 bottles, each in its proper place, ready to go up on the grocer's shelf.

WHAT'S *YOUR* CARTONING PROBLEM?

Large output, or small, complex cartoning problem or routine, there may be cost-saving corners *you* can cut, production bottlenecks *you* can eliminate. Let Redington help us, in many instances, only Redington CAN! Our engineers will be glad to consult with you whenever you say. Don't hesitate. Write us now.

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EVERYBODY'S BUSINESS

AS SOMEONE HAS SAID, America, in refusing to face up to the facts of the world trade situation, acts very much like the man who has been told by his doctor that his health is bad. The symptoms are clear, the remedy is unpleasant; he isn't feeling *too* bad at the moment and maybe if he just ignores the trouble, the trouble will go away.

An excess of exports over imports used to be called a "favorable" balance of trade. But how can it be favorable today, when our $5 billion balance for 1949 was achieved at the cost of the same amount handed out for foreign "recovery"? Passing our money back and forth across the Atlantic in this manner is a palliative, but not a cure. Real recovery abroad, on which world stability and our own future certainly depend, can come only when we take effective steps to increase our imports to the point where the dollar gap is closed.

What can packaging do about it?

Well, we point with pride to little Holland, which, recognizing the importance of proper packaging to build business in this country, asked MODERN PACKAGING to organize an exhibit and conference on American packaging styles and techniques. At our request, suppliers, designers and printers sent over 1,000 packages and displays, which were exhibited in March at the International Trade Fair in Utrecht.

As a result, several important Dutch exporters have decided to put their packaging in American hands. Producers of beer, cocoa, cheese and bulbs, formerly packaged in Holland, are studying arrangements for shipping these products in bulk and have them packaged over here—using American facilities, American machinery, American materials and American know-how. Thus, in one small way, we get something back directly on our foreign-aid investment and, by stimulating the importation and sale of European products, we help narrow that dangerous foreign-trade gap.

A discouraging footnote to this story is the fact that, while 35 suppliers responded to this appeal, almost as many others replied: "Not interested in foreign business." They fail to see that foreign business today is everybody's business.

The Editors

PACKAGING SUCCESSES

PACKAGED LEAF MOLD WINS NEW MARKETS: Hi-Line Engineering Company of Seattle, Wash., sells leaf-mold in truck loads of 5 cubic yards. But this quantity is far too large for most home gardeners. So, they started packing in small, printed Pliofilm bags, at a substantially higher price per pound to cover packaging and distribution costs. Their plan has proved a boon to small users as well as a profitable venture for the packers and their sales outlets. Many products now sold in bulk can increase their profit margins and gain wider distribution by small unit packages—but attractiveness and impact are basic necessities for success.

★

SAVES WEDDING GOWNS FOR "HEIRLOOMS": Scientific, preservative processing and air-tight, moisture-tight METALAM packaging will keep wedding gowns fresh and dainty for generations, according to Heirloom Laboratories, of New Haven, Conn. Their method is offered to brides of today so that 25, 50 or 100 years hence, daughters and granddaughters may proudly wear the gowns of past generations. Deterioration and discoloring is prevented by chemical treatment after the wedding day. Then the gown is tenderly packed in its protective, attractive bag of METALAM, made of laminated film and foil, by Dobeckmun. When opened years later, all the beauty and daintiness are preserved. METALAM packing not only protects delicate textiles, for a short time or a century, but offers wide utility for packers of more prosaic chemicals, pharmaceuticals, dehydrated, "thirsty" products—in large quantities or in unit or sample amounts.

★

SMALL SAMPLE SELLS LARGER SIZES: Attractively packed in 4-color, cellophane bags by Dobeckmun, 1-pound units of Agri-lite, for horticultural use, effectively stimulate sales of 4-pound and 15-pound units. Reports from The Wyodak Chemical Company of Cleveland, Ohio, state that buyers who are unacquainted with Agri-lite readily invest in the low-cost sample, only to return and purchase in quantities. So successful has this "paid-sampling" been that requirements for 1950 are 250% more than for 1949. Attractive samples pay off—especially when customers pay for them!

★

SUCCESS STORIES such as these are typical of results obtained with Dobeckmun packaging ideas. Ask for practical suggestions on how our ingenuity, facilities and wide choices of materials will bring more sales for your packaged products. The Dobeckmun Company, Cleveland 1, Ohio; Berkeley 2, Calif.

POCKETBOOKS OPEN UP FOR

impact packages

Sales jumped as high as 450% when frozen Sto-Away Chicken Pot Pie appeared in its new dress, styled by Dobeckmun. In crowded self-service cabinets, these brightly printed cellophane overwraps, with their appetizing picture, catch shoppers' eyes . . . and they buy. Clearly printed directions assure "fresh-from-the-oven goodness" when served.

Gold Bell Raisins enjoy equally happy response to their new cellophane overwrap with window. With size and quality of product clearly displayed, buyers know what they are getting—and their pocketbooks open up even when raisins are not on the shopping list. Handsome printing and strong brand identification result in quick recognition and repeat sales.

For shopping-list items or for impulse buying, Dobeckmun packages, bags and overwraps of printed cellophane or other film, usually bring fast and enthusiastic reactions from customers and dealers. We'd like to show you samples and make practical suggestions on how these impact packages can improve your sales. *The Dobeckmun Company, Cleveland 1, Ohio. Berkeley 2, Calif.*

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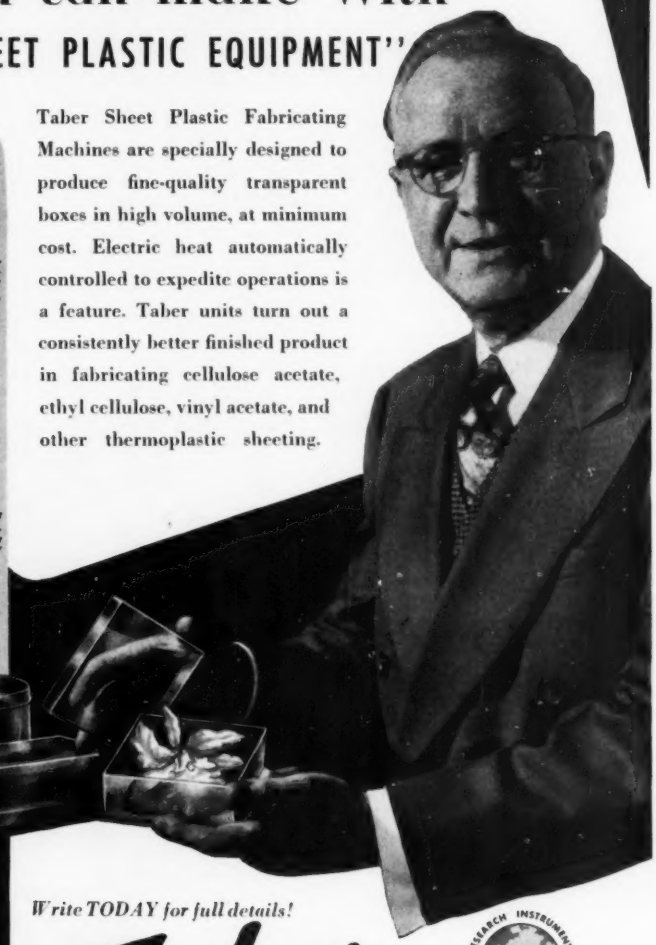

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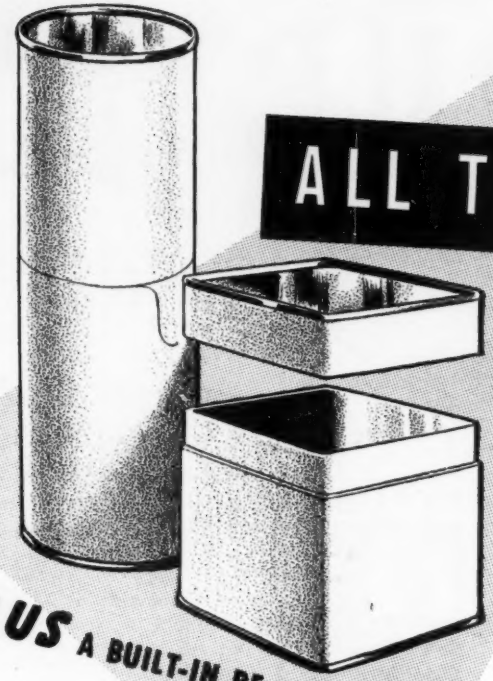

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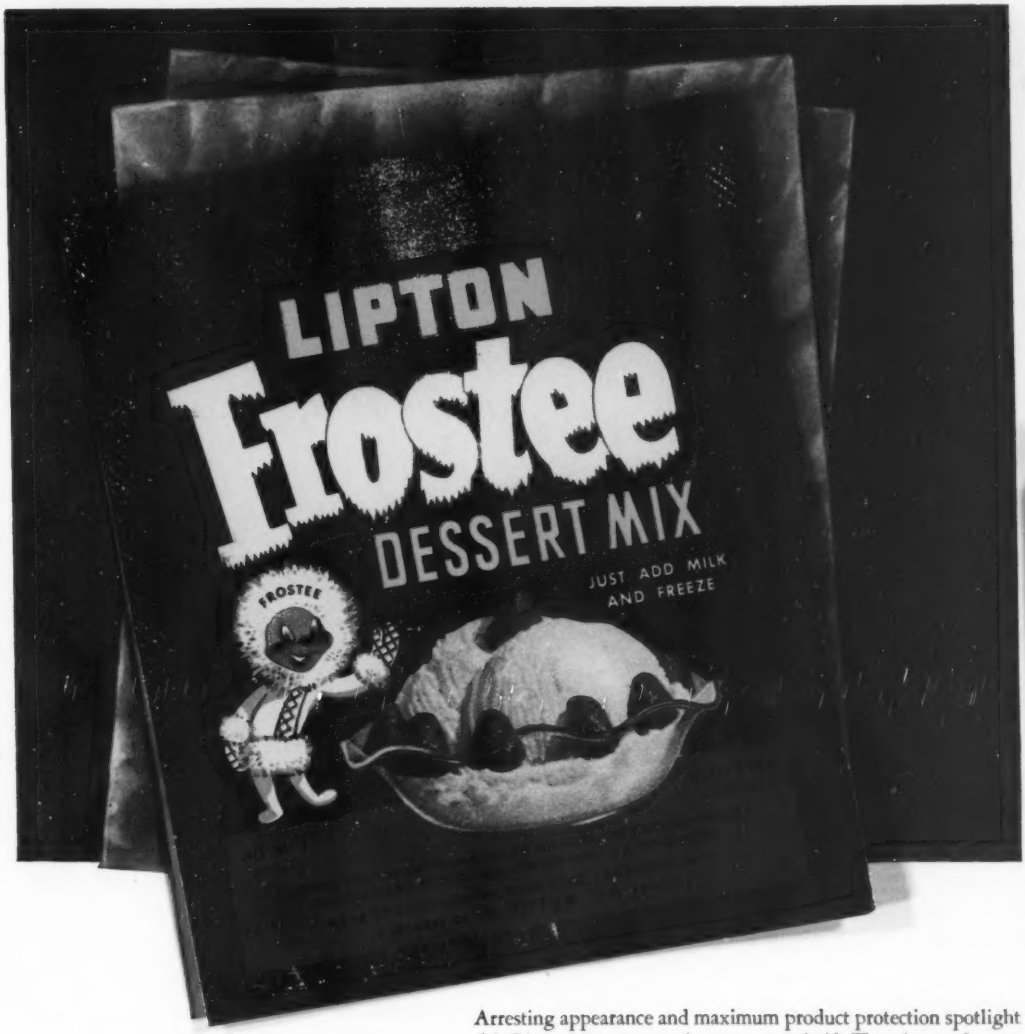

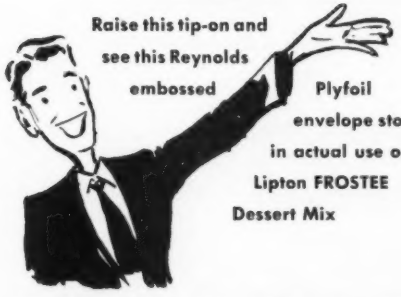

Arresting appearance and maximum product protection spotlight this Lipton FROSTEE package on any shelf. The gleam of sturdy Reynolds Aluminum Foil brings the intense colors into sharp relief... draws the eye, assures product identification, steps up display value. And its performance in affording complete protection against moisture, bacteria, air and light—vital in packaging dry foods—inspires confidence in the product. Let us show you what a difference Reynolds Aluminum protective packaging or labels can make in the successful merchandising of your own product.

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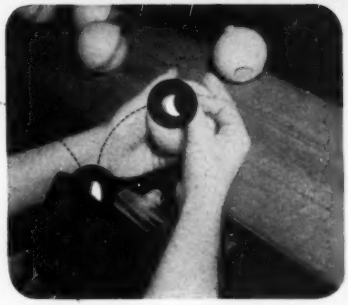
Kum-Kleen Labels provide "stickability"



Max Factor's unusual installation of Kum-Kleen Electric Dispenser conveniently recessed in table and synchronized to production line.

plus production-line speed

ONCE AGAIN, a baffling labeling problem is solved with Kum-Kleen pressure-sensitive labels. This time on the difficult-to-label surface of polyethylene. Not only did these unusual labels provide the needed adhesion, but when combined with the Kum-Kleen Electric Dispenser they provided Max Factor with the production-line speed and labeling economy necessary for high volume production. In this application, individual Kum-Kleen Labels are delivered through electric dispensers to the hand of the operator ready for instant application without moistening—and as fast as required by Max Factor's swiftly moving production lines.

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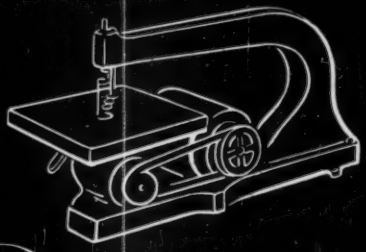

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*

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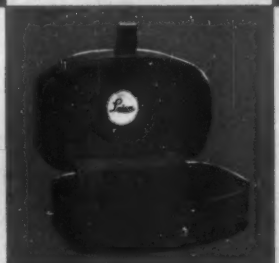
*

Leather Specialty Cases

Chaspec cases enhance the value of scientific and precision instruments. Give protection, too.



*

Point-of-Sale Merchandisers

This Chaspec unit keeps your product prominently displayed and acts as your "silent salesman."

*

Molded Thermaloid Plaques

Chaspec's exclusive process for reproducing facsimiles of solid metal and wood high relief plaques.

*

Gift & Re-use Containers

Let Chaspec create a worthy setting for your prized products.

*

Product Demonstrators

Put products where the customer sees them, handles them . . . buys them.

*

Sampling & Testing Stands

Another example of how Chaspec designs a utility unit with romantic appeal.

CHASPEC'S Unique Manufacturing Facilities

embossing
forming
die-cutting
blanking
coating
enameling
lining
leaf-stamping
laminating
spraying
assembling
combining
gluing
finishing
mounting
silk screening

MATERIALS USED

metal
paperboard
wood
foil
composition
fiber
paper
masonite
glass
sheet plastics
leatherette

*Chaspec packages and displays keep your merchandise moving

Frankly, not everything Chaspec makes is our own creation . . . Many of our outstanding successes have emerged from "half-baked" or even crazy ideas. But Chaspec's know-how, ability and facilities have transformed many a hazy dream into a practical and profitable reality.

THE CHASPEC MANUFACTURING COMPANY

GREENWICH • CONNECTICUT

MAKERS OF FINE PACKAGES AND DISPLAYS SINCE 1920

Another Example

...ARDNER PACKAGING INGENUITY...

A carrier for six tumblers

(filled with sales punch!)

Everyone knows what the six-bottle, carry-out carton did for the *soft drink* business. The Federal Glass Company could "see" how that same idea would boost multiple sales for glass tumblers, too. So could Gardner designers. And pictured here you see the sales-making result.

This Gardner-designed carrier for "Lady Helen" tumblers makes an eye-catching display . . . assures safe transit from store counter to kitchen, without bothersome wrapping and packing. But best of all, it turns "we need another drinking glass" into "let's take six of *these*"!

Maybe we can add a Sales "Extra" to YOUR package

If you have a product that needs an extra point-of-sales push, a product that's hard to package, or a new idea that needs a new packaging idea, get in touch with Gardner. We'll be glad to tackle it. No obligation, of course.

THE GARDNER BOARD AND CARTON CO.

Manufacturers of Folding Cartons and Boxboard, 408 Charles St., Middletown, Ohio

Sales Offices in Boston, Chicago, Cleveland, New York, Philadelphia, Pittsburgh, St. Louis

POLYETHYLENE
PLUS
PAPER
PLUS
FOIL

Lock the door to moisture!

Give packages new appeal!

THANKS TO its superb moisture control characteristics, Loxol Silver Chami-Pak®—H. P. Smith's unique *hot melt* combination of aluminum foil, paper and polyethylene—was selected as the packaging material that would most effectively protect the flavor, aroma and freshness of United States Tobacco Company's Dill's Best Smoking Tobacco.

The aluminum foil exterior of Loxol Silver Chami-Pak is easily printed and its brightness pushes the packages into prominence on display counters. What's more, the combination of polyethylene and aluminum foil has excellent MVTR and greaseproof properties, and its deadfold characteristics make resealing a cinch. The polyethylene coated interior has an appealing, clean white gloss.

Lots of uses

Alert packagers are finding numerous instances in which Loxol Silver Chami-Pak gives them better product protection. The special patented hot melt method for applying the polyethylene can put down a controlled caliper coating from $^1/_2$ to 10 mils thick. And costs have been brought low enough to make it practical to use Loxol Silver Chami-Pak for a wide range of products.

Send today for sample sheets of Loxol Silver Chami-Pak. We'll also recommend a converter in your vicinity who is qualified to make protective Loxol packages for you.

*T.M. Reg.

H. P. SMITH PAPER CO.
MANUFACTURERS
IMPREGNATORS · LAMINATORS
CORTEX · PAPER · FABRIC · FOIL
5001 WEST SIXTY-SIXTH ST., CHICAGO 38, ILL.

LOOK WHAT'S GOING INTO PLAXPAK!

HINDS HONEY & ALMOND FRAGRANCE CREAM in an 8-ounce Plaxpak bottle retails for 79 cents. Features emphasized are: "Easy to use — just tilt bottle and squeeze . . . built-in dispenser . . . unbreakable . . . refillable . . . and also economical."

HURRIED, ACTIVE MEN will appreciate Sportsman's Airlite Shaving Lotion, Cologne and Deodorant all the more — now that they are "Airlite" in Plaxpak bottles. The unbreakable, flexible containers can be handled quickly without fear of breakage.

ONE LIGHT SQUEEZE of the Plaxpak bottle gives the dentist enough concentrated Oraline Mouth Wash to fill his spray container with a diluted solution. Dentist can lift cap and dispense contents with one hand. Hazard of accidental breakage is eliminated.

MEN, WOMEN and the kitchen are catered to in the utility kits produced by CrystalX Corp., Lenni Mills, Pa., with Plaxpak polyethylene film. From their own experience, more and more consumers are realizing that Plaxpak film is food packaging at its best.

HEWITT EMPHASIZES RE-USE value of Plaxpak polyethylene bath salts bag fabricated by Kellogg Container Division, U. S. Envelope Co. Soft to the touch, the Plaxpak bag is tough and durable — a smart package in every way, full of sales appeal.

FOR FILING OFFICE RECORDS Plaxpak Layflat tubing provides tough, age-resistant and transparent envelopes. File clerks snip off envelopes to size as needed from the roll of Layflat. Tubing is available in various widths.

★ In addition to its packaging products, Plax makes a wide variety of thermoplastics in rod, sheet, tube, and other forms.

More leaders in Plaxpak bottles. And the list is still growing. The unbreakable Plaxpak bottle is answering the sales executive's dream for something new . . . different . . . and better . . . in packaging. It is answering, too, the public's desire for safer, more convenient packaging of the products used in daily living. Substantial contributions to improved packaging are also being made by Plaxpak film. You can have the highlights on Plaxpak by writing for our catalog.

PLAX BLOW-MOLDED PRODUCTS ARE MADE UNDER THE FOLLOWING U. S. PATENTS 2128239, 2175053, 2175054, 2230188, 2230190, 2260750, 2283751, 2349176, 2349177, 2349178

PLAX
FOR PLASTICS
NOT SUBSTITUTES···IMPROVEMENTS

PLAX CORPORATION, P. O. BOX 1019, HARTFORD 1, CONNECTICUT
In Canada, Canadian Industries, Ltd., Montreal

Offices in New York City, Syracuse, Philadelphia, Cincinnati, Chicago, St. Louis and Houston

*Fidel-i-tone

points with pride to

Revlon's

"sunny side up" packaging

Once more LBP's Fidel-i-tone lends a helping hand on one of the year's outstanding packaging projects. Revlon's "Sunny Side Up" carton is keyed to the freshness and delicacy of Spring — and Fidel-i-tone's superb rendering captures the true spirit of the occasion. Fidel-i-tone is *unique* for faithful color reproduction because it uses more than *twice* as many dots per square inch as ordinary color processes — and *more dots* means *more realism!* Small type matter is sharper and cleaner . . . solids are brighter and smoother with Fidel-i-tone. You'll like it! Why not investigate now? Your package can be even *better* in Fidel-i-tone!

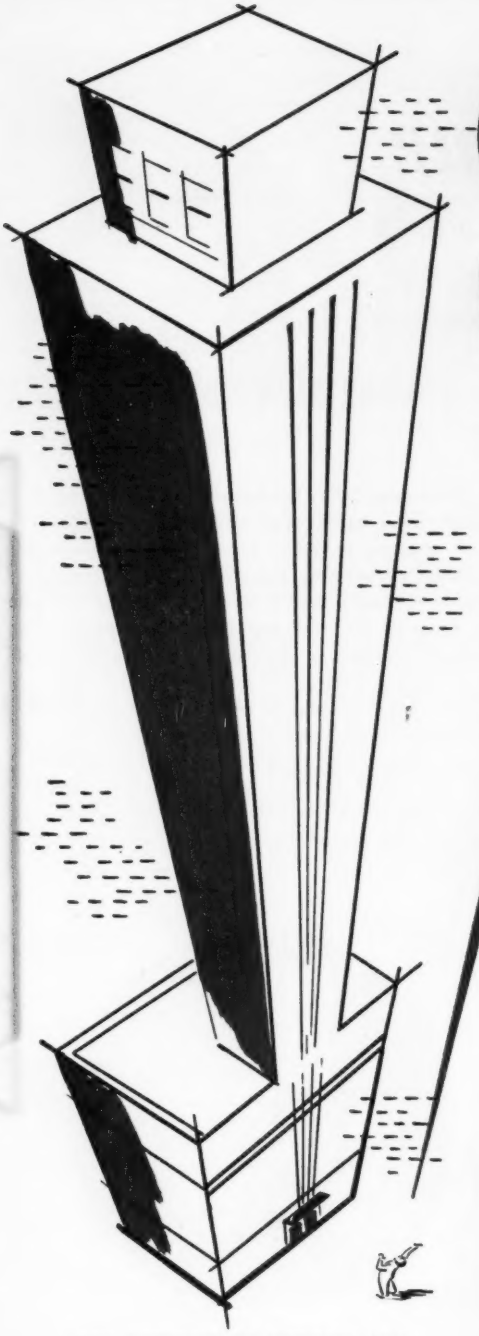
Fidel-i-tone is versatile — equally at home on label paper or ordinary boxboard. For the "Sunny Side Up" promotion, LBP's Fidel-i-tone was used by Revlon for both their nail polish carton and the canister wrap for their Match Box set.

THE LORD BALTIMORE PRESS

BALTIMORE . . . NEW YORK . . . CHICAGO . . . LOUISVILLE

N. Y. Sales Office, 595 Madison Ave., New York 22, ELdorado 5-4180

*An advanced graphic arts color reproduction process which reproduces in screens up to 200-line in volume runs at economical cost.



GOSH

it wasn't even here this morning

Now, w-a-i-t a minute! That's going a little too far. Maybe we do perform industrial miracles in this America of ours, but we have not gotten around to putting up skyscrapers in *one* working day—not yet anyhow. But we're doing things almost as miraculous as that.

Automobiles, radios, television sets, washing machines and so many other wonderful things are pouring off our production lines by the thousands—daily.

Never before in the history of the world have so many labor-saving, time-saving, miracle-working devices been made for the comfort and convenience of any people.

How do we do it? Easy!

We do it simply by a unique combination of qualities that make our nation the most productive of any country on earth. We do it with a system built on our solid faith and belief in the dignity of the individual.

We haven't reached a state of perfection yet. We probably never shall. But we've been getting better and better and better all the time. While we've been making all of these wonderful things, we've been working progressively shorter hours, earning more money, living better and decreasing the cost of production so that prices can go down.

Our American system is the best, the most thrilling, ever devised. With even better teamwork, the future is unlimited. If you want to help make that future, join with The Advertising Council in explaining the American economic system to your employees.

Order copies of the booklet "The Miracle of America" which explains clearly and simply how a still better living can be had for all if we all work together. See that each of your employees receives one of these copies.

Let's show the world what Americans can do when they really *try*.

WANT TO HELP?
MAIL THIS

The Advertising Council, Inc. Dept. B
25 West 45th St., New York 19, N. Y.

Please send me prices on _____ copies of "The Miracle of America", so that each of my employees may receive one.

Name _____

Company _____

Address _____

THE ADVERTISING COUNCIL, INC.
A non-profit organization representing all phases of advertising dedicated to the use of advertising in public service.
25 West 45th St., New York 19, N. Y.

PUBLISHED IN THE PUBLIC INTEREST BY MODERN PACKAGING

Efficient . . . Fast . . . Dependable . . .

42 years serving the carton buying industries . . .

CHICAGO CARTON COMPANY

4200 SOUTH CRAWFORD AVENUE • CHICAGO 32, ILLINOIS

TELEPHONE VIrginia 7-2500

FOLDING CARTONS • PLAIN • PRINTED • LAMINATED • PARAFFINED

Tri-State RIGID PLASTIC BOXES Write a SWEETER Sales Story ...for Welch's

The James O. Welch Company, one of the nation's principle manufacturers of top quality candy, selected Rigid Plastic Boxes to add new sales stimulous to their product.

Following the introduction recently of Welch's Candy Dish—a delicious 10-ounce mixture of Pom Poms, Junior Mints, and Ditto Nuts in a crystal-clear transparent Rigid Plastic Box—sales of this candy have increased steadily. Buyers can see the product—and that's what pays off in sales! They can see that it's taste-appealing candy, that the measure is full, and that they get a handy BONUS utility box with every purchase.

To excite a new sales potential in your product, investigate Tri-State Rigid Plastic Boxes. We've a wide assortment of stock sizes and shapes for you to choose from. Or we'll mold to your specifications. Write or call any of our offices for a better solution to your packaging problems.

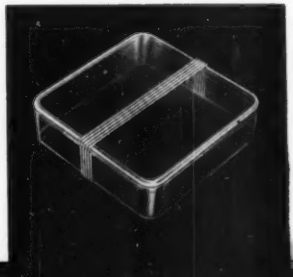
This stock box 4⅝"x4⅝"x1¼" by America's pioneer manufacturer of injection-molded Rigid Plastic containers filled the bill for The James O. Welch Company. For style, adaptability and economy, Tri-State *naturally* led the field.

The best Rigid Plastic Boxes are Injection Molded by

TRI-STATE PLASTIC MOLDING CO.

HENDERSON, KENTUCKY

New York: 12 E. 41st Street—Murray Hill 3-6572
Chicago: 176 W. Adams St.—Franklin 2-7292



Send for a sample of SUN TUBE'S exclusive new "satin-finish" shoulder aluminum tube today!

No die marks! *No* ridges! Just satin-smooth "satin-finish" shoulders on Sun Tube's handsome new aluminum tubes.

Result: This exclusive Sun Tube development makes your product look like $1,000,000. (Yet it costs no more than any other aluminum tube!)

But send for a sample and see all this for yourself. And on your say-so, we'll fill your order with the same fast, dependable service Sun Tube's been giving for over 25 years. Just phone or write our home office or nearest representative.

- **NEW "SATIN-FINISH" SHOULDERS!** A Sun Tube exclusive!
- **BEAUTIFUL SOFT-LUSTRE FINISH!** Improves the looks of your product!
- **NO DIE MARKS OR RIDGES!**
- **PLUS ALL THESE QUALITY TUBE ADVANTAGES!**
  - Extra flexible
  - Clean, strong, uniform
  - Clear reproduction—any design or color
  - Costs no more than other quality tubes

Aluminum Tubes by Sun Tube

Sun Tube Corporation, 181 Long Ave., Hillside, N. J.

FREE SAMPLE!

Please send me your new aluminum tube with the exclusive "satin-finish" shoulder. No obligation, of course.

Name_____

Name of Company_____

Address of Company_____

City_____ Zone____ State_____

MP-50

Chicago 26, Ill. . . . . *James L. Coffield, Jr., 7720 N. Sheridan Rd.*
St. Louis 1, Mo. . . . . . *M. P. Yates, Arcade Building*
Cincinnati 8, Ohio . . . . . *Ralph H. Auch, 3449 Custer Road*
Seattle 4, Wash. . . . . . *King & Anderson, 1016 First Ave. South*
Los Angeles 27, Calif. . . *King & Anderson, 1001 No. Vermont Ave.*
St. Paul 1, Minn. . . . . . *Alexander Seymour, 1411 Pioneer Bldg.*
Dallas 2, Tex. . . . . . *R. P. Anderson Co., 317 Texas Bank Bldg.*
Portland 1, Ore. . . . . . *King & Anderson, Foot S. W. Gibbs St.*
San Francisco 3, Calif. . . . *King & Anderson, Western Merchandise Mart, 1355 Market Street*
Houston 2, Tex. . . . *R. P. Anderson Co., 603 M & M Building*

10
OUTSTANDING AWARDS
Playtex
MITTS
Dutch Maid
MIXED
COOKIES
GAIR
• Reg. U. S. Pat. Off.
ROBERT GAIR COMPANY

to ROBERT GAIR *in...*

CARTON COMPETITION

WINNING TEN awards in the 1950 Carton Competition sponsored by the Folding Paper Box Association of America, is an outstanding achievement... a truly dramatic demonstration of GAIR technical skill in the art of creating, designing and producing folding cartons.

Winning cartons were selected from a list of 531 entries by a panel of judges, consisting of, Neil McCash, Packaging Division, Kroger Company; O. T. Sands, Packaging Department, Sears Roebuck and Company; Morton Goldshall, president, Society of Typographic Arts; and F. W. Boulton, art director, J. Walter Thompson, Advertising.

GAIR is extremely proud of capturing these coveted laurels. Yes, proud of every element of "know-how" that entered into this outstanding accomplishment. It was a typical result of GAIR folding carton facilities and skillful team-work.

In each one of the TEN winning packages there was evidence of noteworthy ingenuity in research, creation and design, application of both standard and exclusive materials and printing processes.

Many famous products go to market in GAIR prize winning cartons. In highly competitive markets they become successful silent salesmen . . . a major tie-in factor where millions of dollars are invested in advertising and sales promotion.

GAIR technical staff will be glad to hear about your packaging problem. Write today.

INC. • NEW YORK • TORONTO

PAPERBOARD • FOLDING CARTONS • SHIPPING CONTAINERS

The new specially designed nozzle of the WIRZ grease-tip tube prevents grease "backfiring," cuts lubricant losses. Tapered and long enough for practically every type outboard motor, the nozzle fits snugly into lower unit diameter openings from 19/64" to 13/32" . . . reduces the inconveniences of the lubricating job. WIRZ grease-tip tube has met instant approval everywhere.

Among the leading manufacturers who have adopted the new WIRZ grease-tip tube are Texaco, Dixon, Evinrude, Johnson, Socony-Vacuum, Whiz, etc.

If you want to increase the speed, economy and convenience of your product-in-use, it will pay you to try WIRZ collapsible metal tubes. The grease-tip tube is one of many practical tube designs for a specific purpose produced by WIRZ in the consumer and industrial fields since WIRZ made the first tubes in America back in 1872. Write today for samples and recommendations.

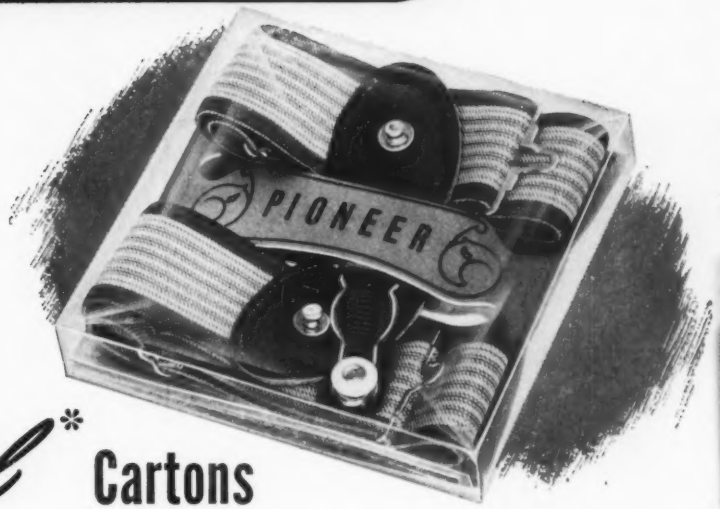
ESTABLISHED 1836
A. H. WIRZ Inc.

Fourth & Cole Sts. CHESTER, PA.

New York 17, N. Y. 50 E. 42nd St. | Chicago 4, Ill. 80 E. Jackson Blvd. | Memphis 2, Tenn. Wurzburg Bros. | Havana, Cuba Roberto Ortiz Planos | A. G. Spilker Los Angeles 14, Calif. 1709 W. 8th St., Exposition 0178 | Export Division—755 Drexel Bldg., Philadelphia 6, Pa.

Collapsible Metal Tubes • Lacquer Linings • Wax Linings • Westite Closures • Soft Metal Tubing • Household Can Spouts • Applicator Pipes • Compression Molding

The lowest-cost All-Transparent Rigid Packages



Plastafol* Cartons

NO OTHER PACKAGES ARE MORE APPEALING AT POINT OF SALE... PROTECT BETTER... DISPLAY THEIR CONTENTS MORE EFFECTIVELY

Here's how to make window-clear plastic go to work on your sales problem. Our famous PLASTAFOL* Cartons may well prove the best silent salesmen you ever put on the payroll.

In small sizes for which PLASTAFOL* Cartons are especially adapted, they cost less than any other rigid plastic package. Packagers of highly competitive, smart merchandise have kept our plant growing. Our business is up 600%... and we'd like to take a crack at helping you step up yours.

Write or wire us. We'll get right on the job!

PACKAGED IN *Plastafol**

**Trade Mark Reg. U. S. Pat. Off.*

Troth · Bright · Page, Inc.

Paoli, Pa. · Phone, Paoli 1846

New York, N. Y. · Phone, Enterprise 6613

American Can in New York moves to 100 Park Avenue

On May 1st, after many years at 230 Park Avenue, we occupy a beautiful new home in one of the world's most modern office buildings, 100 Park Avenue, at 41st Street.

Come and see us

Come by train . . . we're just 1 block south of Grand Central Terminal! Come by plane . . . the airlines terminal is just around the corner! Subway is across the street. Close at hand are America's best-known shops and hotels.

We cordially invite all our friends to visit our new quarters. Don't let the weather stop you; the building is air-conditioned throughout . . . even the sidewalks are steam-heated . . . to keep them clear of snow and ice.

Our telephone number (and the warmth of our welcome) remain the same. Telephone: MUrray Hill 6-4900.

AMERICAN CANCO CAN CO.

Packages Illustrated, Milprint Rotogravure
Printed Cellophane Carton Overwraps

these Milprint packages invite themselves to dinner!

Take a good, long look at your packages, with this in mind:

—38% of all food is bought on impulse
—75% of the shoppers buy unplanned items

That ought to prove that food packages must be loaded with irresistible appeal that makes shoppers stop, look and buy when they didn't intend to.

If your product is food or textiles or anything else that's exposed to impulse buying, you need an eye arresting package created by Milprint's expert designers. They know how to fashion a package that invites itself into the customer's home.

Call your local Milprint man or write today for suggestions to improve your package. No obligation.

"follow-thru" service

This lithographed display is an example of Milprint's "Follow Through" service to help you sell more merchandise. We'll create and print your displays, booklets, broadsides and all types of printed promotional material.

This insert printed by Milprint, Inc.

Milprint INC
PACKAGING MATERIALS
LITHOGRAPHY & PRINTING
GENERAL OFFICES MILWAUKEE, WISCONSIN
SALES OFFICES IN ALL PRINCIPAL CITIES

Here's a carton cutter and creaser

Designed for the Carton Manufacturer

Until now, carton cutting and creasing presses have been largely variations of equipment designed for other purposes. *Champlain's Stationary Carton Blankers are the first specifically designed for the carton manufacturer.* Result: up to 50% greater efficiency, with platen press quality scores at better than cylinder press production.

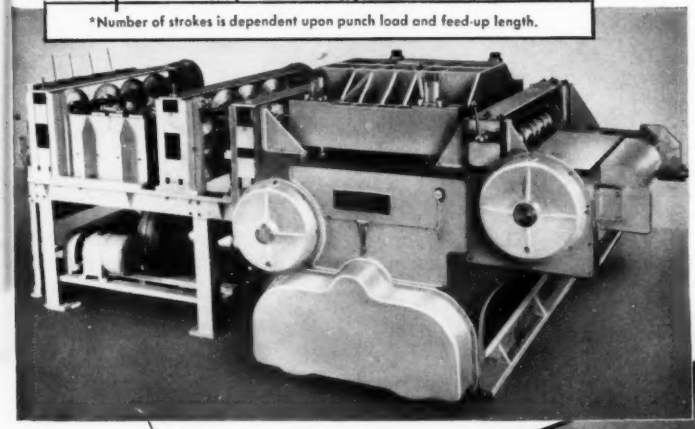
These new presses not only make possible faster production than with existing equipment, they also mean many other important savings. They handle roll stock which means more cartons out, no gripper space, reduction of edge trim, lower paper costs, easier handling. They use ordinary steel rule and wood furniture dies facilitating makeready and changeover. They're equipped with double roll stand . . . one roll can be mounted while other is being run, practically uninterrupted production. *For average carton designs, automatic stripping is provided.* Automatic, electronic control equipment is provided for register of die cutting to preprinted web.

Designed as independent units, Champlain Stationary Carton Blankers can also be used inline with rotogravure, aniline-anilox or letterpress color units to provide finished, printed cartons in one pass through the press. Stock can also be coated, tinted or varnished in the same operation.

This equipment is the latest development in Champlain's continuing program of bringing to the packaging industry the best in rotary printing and inline fabricating processes and equipment. It will pay you to get the full details that will point the way to more economical, faster production of better cartons.

Model	Maximum Web Width Inches	Maximum Die Width Inches	Maximum Die Length	Speed* Strokes Per Minute
20″	21″	20″	30″	100-180
26″	28″	27″	30″	100-165
36″	37″	36″	30″	100-150

*Number of strokes is dependent upon punch load and feed-up length.



DEPEND ON THE LEADER

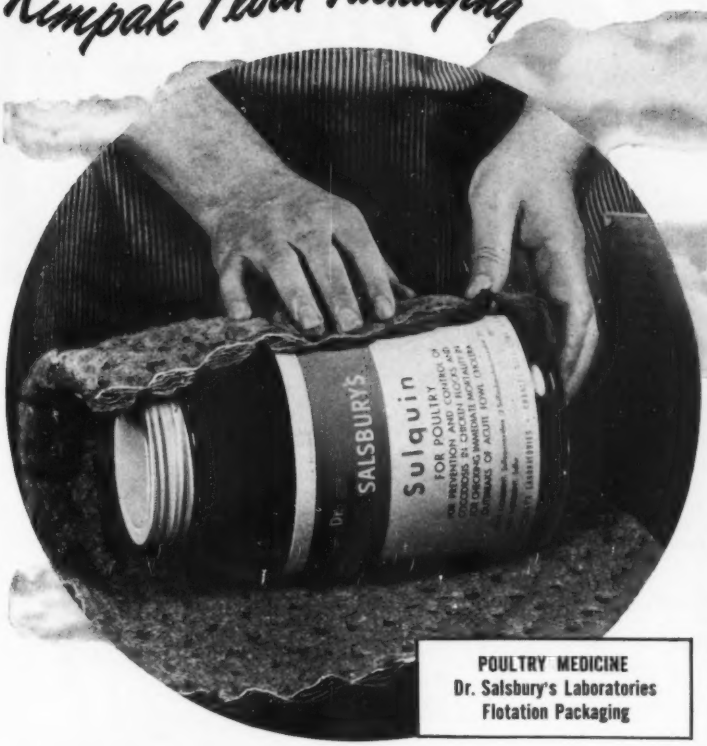
CHAMPLAIN COMPANY, INC.

88 LLEWELLYN AVENUE, BLOOMFIELD, N. J.

CHICAGO OFFICE: 7 W. MADISON ST., CHICAGO 2, ILL.

Rotogravure at its best

Kimpak* Float Packaging



POULTRY MEDICINE
Dr. Salsbury's Laboratories
Flotation Packaging

Surface Protection. Love seat. Photo courtesy of Century Furniture Company, Hickory, North Carolina.

Cuts shipping costs— reduces damage in transit!

Do you handle your product with extreme care during the manufacturing process—then trust it to outmoded, inferior quality packaging materials after it leaves your shipping room? You may not be able to answer that question if you haven't seen KIMPAK* Float Packaging at work.

It's the modern way to ship anything from delicate glassware to furniture and appliances; from drugs and pharmaceuticals to flowers and food. It's also one of the most efficient packaging methods in the world—giving optimum protection at minimum cost.

KIMPAK creped wadding is as neat, clean and easy to apply as wrapping paper, to make your packaging operation fast, up-to-date. It's designed to absorb continuous vibration, ward off severe shocks, cushion and defend your product against roughest handling. This highly-efficient cushioning material protects the finest finish from scratching, bruising, pressmarking and "burning".

KIMPAK is available in sheets, pads, rolls, various thicknesses and backings; absorbent or moisture resistant. There is a specification for all four basic methods of interior packaging: Bracing and Blocking, Flotation, Surface Protection, Absorbent Packaging. For further information, contact your nearest distributor, listed in classified phone directories under "Packing Materials" or "Packing Materials—Shipping"; or write to Kimberly-Clark Corporation, Neenah, Wisconsin.

Combination Wrap. Cory coffee brewer. Photo courtesy of Cory Corporation, Chicago, Illinois.

FREE BOOKLET!

KIMBERLY-CLARK CORPORATION
Neenah, Wisconsin MP-550

Please send me free the illustrated KIMPAK booklet, "Float Packaging."

Name .....

Firm .....

Address .....

City, Zone, State .....

Kimpak

REG. U.S. PAT. OFF. & FOREIGN COUNTRIES

Kimberly-Clark

CREPED WADDING

*T. M. REG. U. S. PAT. OFF.

NOW!

An Important New Development in Offset Prevention!

POSITIVE POWDER CONTROL

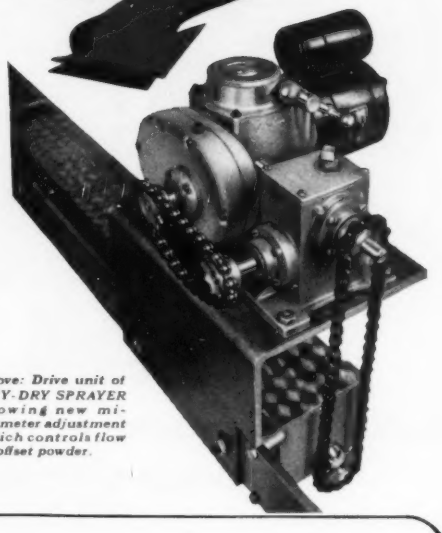
with the new OXY-DRY SPRAYER MICROMETER CONTROL

Now with "POSITIVE POWDER CONTROL" you not only get all the regular advantages of OXY-DRY offset prevention—you also have an accurate method of controlling the *amount* of offset powder applied to each printed sheet. OXY-DRY's new micrometer "POWDER CONTROL" setting operates quickly, without stopping the press. Here's a sure, accurate way to adjust the distribution of powder to press speed and ink conditions!

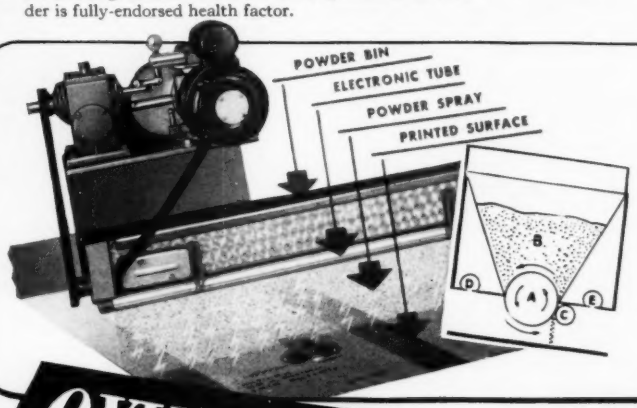
OXY-DRY continues to lead in solving offset problems in hundreds of plants—on all kinds of equipment. Let us tell you in detail how OXY-DRY SPRAYERS will save money for you. Write today!

Here Are the Advantages of the OXY-DRY SPRAYER

1. Uniform Offset Prevention on all types of work.
2. Positive Powder Control—with new micrometer speed adjustment.
3. Elimination of Static Electricity from Sheets permits easy flow of work.
4. Fast Drying of Ink and Faster Handling of Sheets permits full press delivery.
5. Time and Labor Saved, fewer press interruptions.
6. No Dusting Hazard—small amount of powder used. Powder is fully-endorsed health factor.



Above: Drive unit of OXY-DRY SPRAYER showing new micrometer adjustment which controls flow of offset powder.



HOW THE OXY-DRY SPRAYER WORKS

As brass cylinder (A) revolves, anti-offset powder (B) is distributed past electronic tube (C) receiving 10,000 volt positive charge and bonding instantly across freshly-printed surface below. The static electricity (negative electric charge) in the paper is instantly dispelled. Air vents (D & E) set up air curtains, and are required only under extremely drafty shop conditions. Micrometer setting controls speed of revolution of cylinder (A).

OXY-DRY

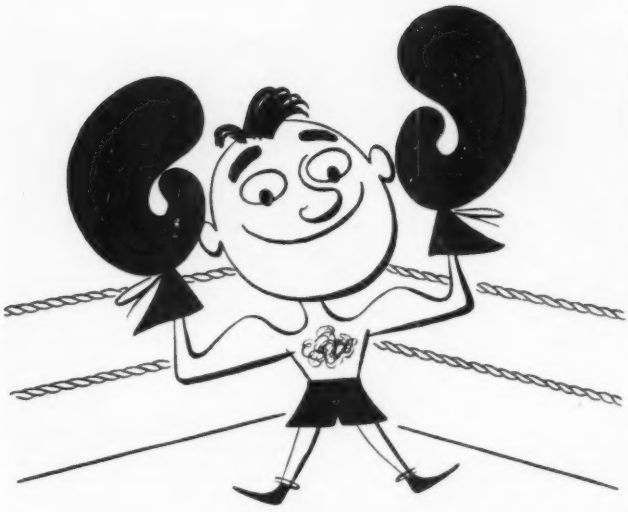
For further information write Dept. MP

OXY-DRY SPRAYER CORP.

320 So. Marshfield Ave., Chicago 12, Ill.

FULL-PRESS-DELIVERY OFFSET PREVENTION

In the ring for Increased Sales?



Get help from a Boxing Champ!

WALTER P.
MILLER
COMPANY, INC.
452 YORK AVENUE, PHILADELPHIA 23, PA.

CHRISTMAS IS TOMORROW ... *almost!*

One of the most widespread popular fallacies is that Christmas comes approximately six months after June.

In terms of business days, nothing could be further from the truth. Figure it out yourself. Vacations take a big bite out of the summer; conventions and other things eat up the early fall; consequently, the time to start planning your Christmas packages is *now* . . . for Christmas is practically tomorrow!

For best results with holiday packaging, you'll be wise to ask your Miller representative for suggestions. Man and boy, we've been building Christmas boxes since Santa's reindeer first grew antlers. We've helped set holiday sales records for confections, jewelry, novelties, toys, textiles, and many other types of products. And we have some ideas for the 1950 season that might be just the thing to spark *your* sales curve!

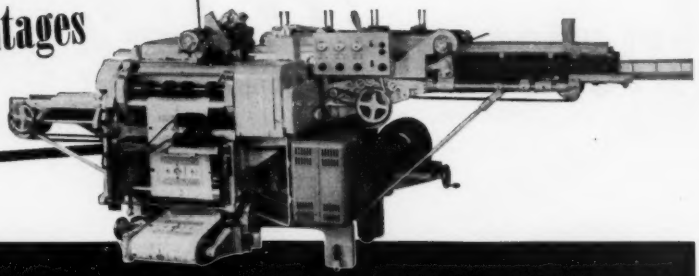
But remember, time is short. Listen closely and you can almost hear sleigh bells now. Better get started *this* week!

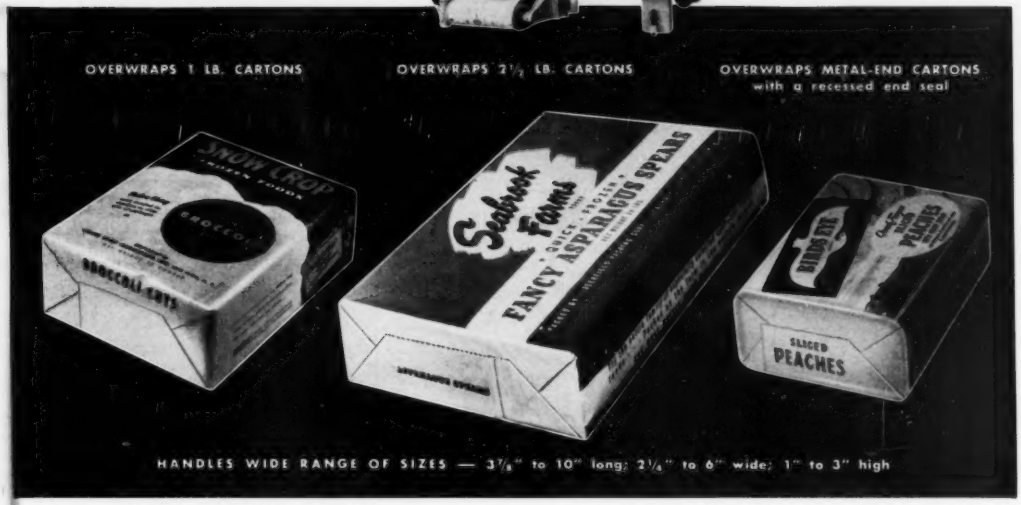
Designers and manufacturers of SET-UP PAPER BOXES

check these important new advantages

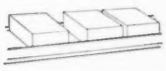
OF THE IMPROVED

BATTLE CREEK MODEL 46 WRAPPING MACHINE

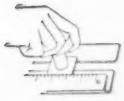




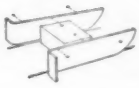
THESE NEW FEATURES PLUS SPEEDS UP TO 100 PER MINUTE CUT YOUR COSTS



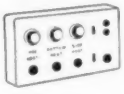
1. AUTOMATIC CONTROLS handle intermittent flow of packages without need of operator. The Model 46 may be synchronized with other packaging operations by conveyors, and each package moving into the machine automatically unlocks its own sheet of paper, when in position for wrapping.



2. CALIBRATED ADJUSTMENTS allow quick changeovers from one package size to another. Only 5 to 10 minutes are required to change the Model 46 from one size package to another. Simple-to-use calibrated adjustments may be charted for future reference . . . save time in future set ups.



3. BREATHING FOLDERS take care of package variations . . . give a neat "show case" look to finished package. Bulges and slight irregularities in packages are easily handled by "breathing folders" to provide a neat, tight seal . . . eliminate shutdowns . . . achieve steady production . . . handle recessed end cans.



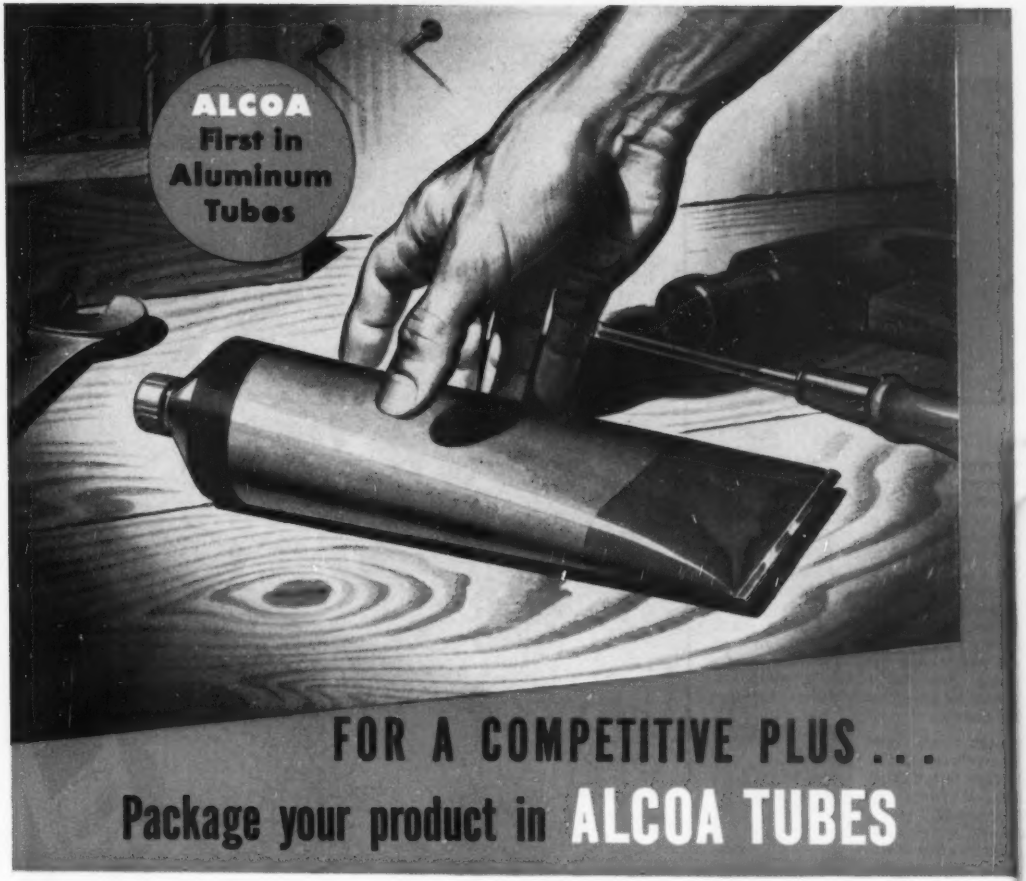
4. THERMOSTATIC HEAT controls handle the latest heat-seal papers. Improved, centralized thermostatic heat control panel with fingertip adjustments permits pre-heating of paper while it is being folded. Result? A tighter, more durable seal.

Continuous Flow PACKAGING

GIVES THE GREEN LIGHT TO PACKAGING PRODUCTION

BATTLE CREEK BREAD WRAPPING MACHINE COMPANY

BATTLE CREEK, MICHIGAN



FOR A COMPETITIVE PLUS . . .
Package your product in ALCOA TUBES

Put your product in packages that customers reach for . . . colorful, eye-catching Alcoa Aluminum Tubes. Aluminum tubes are easy to use; light, to reduce shipping costs; strong, to withstand rigors of handling and shipping. Most economical of all large size metal tubes.

FOR YOUR INFORMATION

We've assembled a 24-page booklet, "Packaging in Alcoa Aluminum Tubes", containing technical information on collapsible tubes. Describes filling and closing operations, capacities, caps and neck types, etc. It's free—

Write

ALUMINUM COMPANY OF AMERICA

1751E Gulf Bldg. · Pittsburgh 19, Penna.

Here are some of the industrial products now packaged in Alcoa Aluminum Tubes:

Automotive	Gasket Cement	Liquid Hide Glue	Rubber Cement
Body Cleaner	Gear Lubricant	Marine Glue	Silicone Compound
Buffing Compound	Glazing Putty	Outboard Motor Lubricant	Spot Putty
Caulking Compound	Hand Cleaner	Paint Pigments	Trim Cement
Cold Solder	Ink	Polishing Compound	Weather Strip Cement

THEY GOT THE FACTS FROM FORBES

UNVEILED! This 3-plane, full-color, illuminated display dramatically demonstrates how American Optical Polaroid sun glasses *get rid of "Glare Veil."* The lovely temptress' dare, "See What You Miss," makes sure that sidewalk traffic doesn't miss looking. The viewer *actually* sees the difference between ordinary sun glasses and the AO Polaroid brand. Created and produced by Forbes, this ingeniously designed, handsomely lithographed display is now opening wise buyers' eyes in windows everywhere. American Optical's advertising agency for sun glasses is Federal Advertising Agency.

HAILED — one chief by another — as this Forbes production gets a Santa Fe "commercial" into a colorful custom-made calendar. More and more users of this point-of-use medium are turning to Forbes to take advantage of the findings of one of the most comprehensive surveys ever conducted in the calendar field. The Man from Forbes will be glad to show them to you.

MAILED within 24 hours . . . a free copy of Forbes' 1950 pictorial calendar. It features a famous Clipper ship painting, one you'll be proud to frame after you've used the calendar. Only a few are left. First come; first served.

SPEAKING OF CALENDARS, the Man from Forbes is now taking orders for 1951 3-months-at-a-glance calendars. Hundreds of firms welcome this inexpensive opportunity to utilize reminder advertising.

FORBES FACTS help you take the guesswork out of investments in printed merchandising. These facts have been gathered by experience, continuing studies and unique facilities in lithography, letterpress, web gravure and die stamping. No other source offers you the benefits of such facilities under one-roof management control. Let the Man from Forbes tell you more about the benefits.

Warm up your dealers' hearts with delightful surprises like this. Give them the benefit of displays that are *impact-packed by the Facts from Forbes.* Results are immediate, our clients say.

FORBES LITHOGRAPH CO.

NEW YORK · CLEVELAND · BOSTON · CHICAGO · ROCHESTER

Delivers Merchandising Impact

Glamour Unlimited

After viewing the new eye make-up, one would be brash indeed to predict where cosmetic manufacturers will draw the line in glorifying the female physiognomy and other points of interest. Certainly the end is not in sight, and at least half the population hopes it never will be.

Retail sales of beauty aids ran to $749,800,000 in 1948, following an almost unbroken upward curve. This year's glamourization, encouraged by a likely cut in excise taxes, bids fair to stand milady a pretty penny. These creams, lotions, powders, pencils, nail polishes, bath oils, grease paints, rare parfums, and what have you are packaged with such allure as the maker's fancy dictates—usually quite fancy. They get deserved protection right up to the point of sale from sturdy corrugated cases.

MEAD's contribution to the cosmetic cosmos, as you might suspect, is its fine .009 Chestnut Corrugating and Liners. MEAD Corrugating is made extra-strong of chestnut and other hardwood fibres to shield such precious products—as the oyster shell safeguards the pearl. It's been absorbing brutal handling and shipping punishment these past 20 years.

Mead Board is sold direct by

MEAD BOARD SALES, INC.

3351 Madison Road, Cincinnati 9, Ohio

NEWARK, NEW JERSEY
784-786 Broad Street

LYNCHBURG, VIRGINIA

CHICAGO, ILLINOIS
205 W. Wacker Drive

"THE SHOW GOES ON"

more and more manufacturers get aboard!

CLEVELAND CONTAINERS

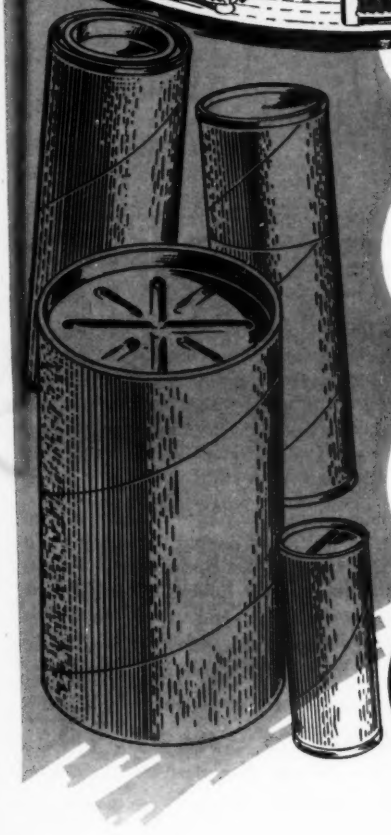
Protect the Product . . .
Persuade the Purchaser

Offer adaptability as to size and shape . . . always with eye-compelling attractiveness.

Low cost advantages . . . excellent deliveries.

Intelligent cooperation in experienced suggestions on meeting your needs in new designs for greater marketability.

Ask our nearest plant for samples . . . or visit our exhibit at the June Purchasing Convention in Cleveland.



The CLEVELAND CONTAINER Co.
6201 BARBERTON AVE. CLEVELAND 2, OHIO
• All-Fibre Cans • Combination Metal and Paper Cans
• Spirally Wound Tubes and Cores for all Purposes

PLANTS AND SALES OFFICES: Cleveland, Detroit, Chicago, Plymouth, Wisc., Jamesburg, N. J., Ogdensburg, N. Y. • ABRASIVE DIVISION at Cleveland
SALES OFFICES: Grand Central Terminal Bldg., New York City; Washington Gas Light Bldg., Washington, D. C.; West Hartford, Conn.; Rochester, N. Y.
Cleveland Container Canada, Ltd., Prescott, Ontario • Offices in Toronto and Montreal

...duck soup

Your plastic molding problems are duck soup to an organization that has grown and prospered by making tough problems their business. ...duck soup to an organization that has unmatched facilities and highly trained technicians to find the *right* answer to problems in design, inexpensive mass production, molding, and packaging. ...duck soup to an organization that has long been known for its ability to bring customers unequalled SERVICE in every respect.

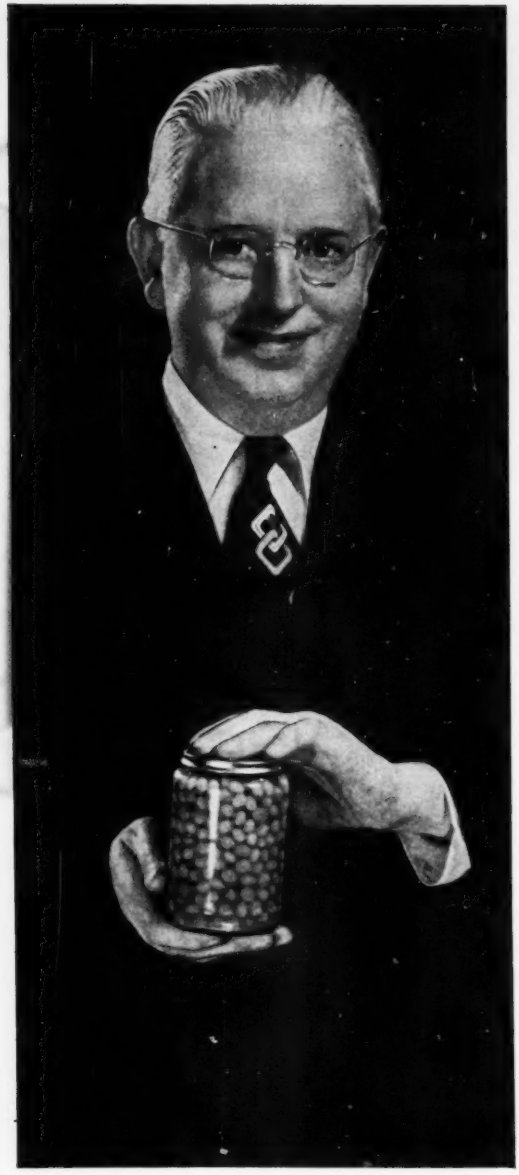
Why not put *your* plastic problems in the hands of Columbia's experts?

Columbia

COLUMBIA PROTEKTOSITE CO., INC., CARLSTADT, N. J.

N. Y. Show Rooms: Empire State Building. - West Coast Office: 380 Bayshore Blvd., San Francisco, Calif.

Sight is selling every kind of food, from raw to processed.



"We're going all out for visible packaging —*it pays!*"

Says MR. RICHARD KOEPKE
Supervisor of Supermarkets
Gristede Bros., Inc.

"It's easy to check how much faster food moves in visible packaging. You see it in dairy products, in meats, fruits and vegetables. It's because people like to *see* what they buy. They find it easier to see high quality—to select what they want. Whatever makes things easier to buy suits us—so we're going all out for visible packaging. It pays!'

Quality speaks for itself, sells itself—in these visual packages.

Mass display of glassed foods wakes up that buying impulse in customers!

The only visual package for processed* foods is glass

Once viewed as a competitor of tin, glass for quality brands of processed foods has been proved a major *supplement* to cans.

The glass-and-tin combination *in the same space* previously allotted only to tin brings to the processed foods department a sparkle that attracts, stops, and increases TOTAL SALES.

*Heat-sterilized in container

Duraglas TRADE MARK REG. U.S. PAT. OFF.

CONTAINERS SELL FOOD BY SIGHT

OWENS-ILLINOIS GLASS COMPANY • TOLEDO 1, OHIO • BRANCHES IN PRINCIPAL CITIES

THE SHELF-SHAPE BAG
THAT PACKS WITHOUT SLACK

Deltaseal®

One reason why more manufacturers are turning to the DELTASEAL PACKAGING SYSTEM*

Deltaseal Bags are flat . . . top and bottom . . . so, they're easy to stack in attractive, space-saving displays. There's no slack-pack appearance to discourage sales. The Deltaseal closure helps the bags keep that full-pack look. Housewives like this closure, too, because the "built in" spout makes easy pouring.

Deltaseal lowers packing costs. Deltaseal Packaging Machinery is designed for Deltaseal bags alone. It fills, shapes and closes the bags fast . . . 2,000 or more an hour, depending on the commodity. Mostly automatic, it handles volume packing with real efficiency.

Let a Bemis representative explain more of the benefits in the Deltaseal Packaging System. Call or write your nearest Bemis office.

***THE DELTASEAL PACKAGING SYSTEM**
Deltaseal Bags plus the Deltaseal Packaging Machinery.

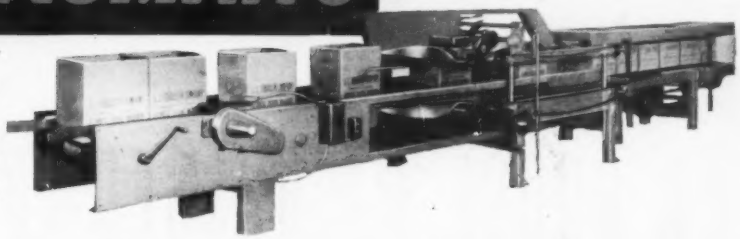
Baltimore • Boise • Boston • Brooklyn • Buffalo • Charlotte • Chicago • Cleveland • Denver • Detroit • Houston
East Pepperell • Indianapolis • Jacksonville, Fla. • Kansas City • Los Angeles • Louisville • Memphis • Minneapolis
Mobile • New Orleans • New York City • Norfolk • Oklahoma City • Omaha • Peoria • Phoenix • Pittsburgh • Salina
St. Louis • Salt Lake City • San Francisco • Seattle • Vancouver, Wash. • Wichita • Wilmington, Calif.

Bemis

LOAD, GLUE, SEAL and IMPRINT YOUR CORRUGATED SHIPPING CASES WITH PACKOMATIC

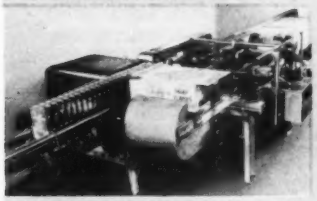
Share the *know-how* to which America's foremost packaged goods manufacturers turn for modern, *automatic* PACKOMATIC fibre shipping case packing, gluing, sealing, dating (coding) and imprinting equipment. *Coupon below will speed information.*

1 Model "D" shipping case gluer-sealer for high speed, moderate or slow production lines. Automatically applies wide variety of glue spreads. Handles both light and heavy corrugated or solid fiber containers. Adjustable for wide variety of case sizes and weights.



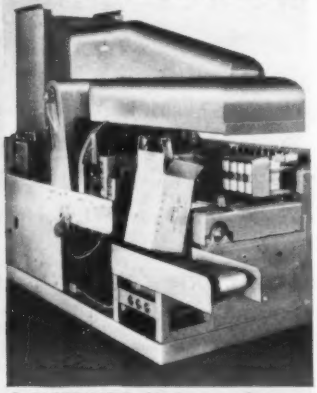
2 "STREAMLINER" Model "D" case gluer-sealer for food, dairy and beverage operations open to public.

5 PACKOMATIC shipping case loader automatically packs filled cartons into cases and starts them on their way to gluer-sealer unit.



3 COMBINATION END LOADER-SIDE SEALER takes round or rectangular packages, assembles and loads them into cases previously squared and registered.

4 SIDE GLUER-SEALER for cases going through in *horizontal* position such as end-open, tall and narrow cases with overlap as well as regular butt flaps.



6 PACKOMATIC shipping case former-packer delivers up to 1200 *loaded* shipping cases per hour, *automatically*.

Turn to PACKOMATIC'S nearly 30 years of helping America's foremost package merchandisers reduce production costs, keep resale prices in line, and step-up earnings with *modern, automatic* packaging —from carton forming and filling, to shipping case loading, sealing and imprinting. PACKOMATIC *automatic* packaging equipment includes:

- CASE PACKERS & SEALERS
- CASE IMPRINTERS
- CARTON FILLERS & SEALERS
- VOLUMETRIC FILLERS
- CARTON MAKING MACHINES
- DATING (CODING) DEVICES
- PAPER CAN FORMING & FILLING MACHINERY

Preserve and protect the shelf appeal of your packages with *modern, automatic* PACKOMATIC packaging machinery. Save time... floor space... labor... money!

★ ★ ★

Regardless of the size or scope of your operation, your inquiry incurs no obligation to purchase. Write J. L. Ferguson Company, Route 52 at Republic Avenue or phone Joliet 6275.

T. M. REG. U. S. PAT. OFF.

FOR LOWER PACKAGING COSTS TOMORROW... MAIL COUPON TODAY

PACKOMATIC

PACKAGING MACHINERY

J. L. FERGUSON CO. JOLIET, ILL.

Chicago • New York • Boston • Baltimore • Cleveland • Denver
New Orleans • San Francisco • Los Angeles • Seattle • Portland • Tampa

J. L. FERGUSON CO.
Joliet, Illinois Dept. MP-150

Please send complete data on ☐ Case Sealing ☐ Carton Filling and Sealing ☐ Package Weighing Equipment.

Company_____

Address_____

City_____ State_____

First Mate for Your Bottle, too

A DODGE MILBOSSED-TOP CORK

Designed both to dress up the package and effectively seal the contents, a Dodge Milbossed-top cork is "First Mate" on this bottle of Mayflower Straight Bourbon Whiskey. An individual number appears on each Mayflower label as the customer's assurance of strict control and high quality. But back of the number is an important plus factor. There, a Dodge Milbossed-top cork stands guard.

Dodge cork closures—famous for airtight fit, uniform quality, ease in opening and resealing—can help you with your packaging problems. Whatever your needs, consult Dodge.

DODGE CORK COMPANY, INC. • LANCASTER, PA.

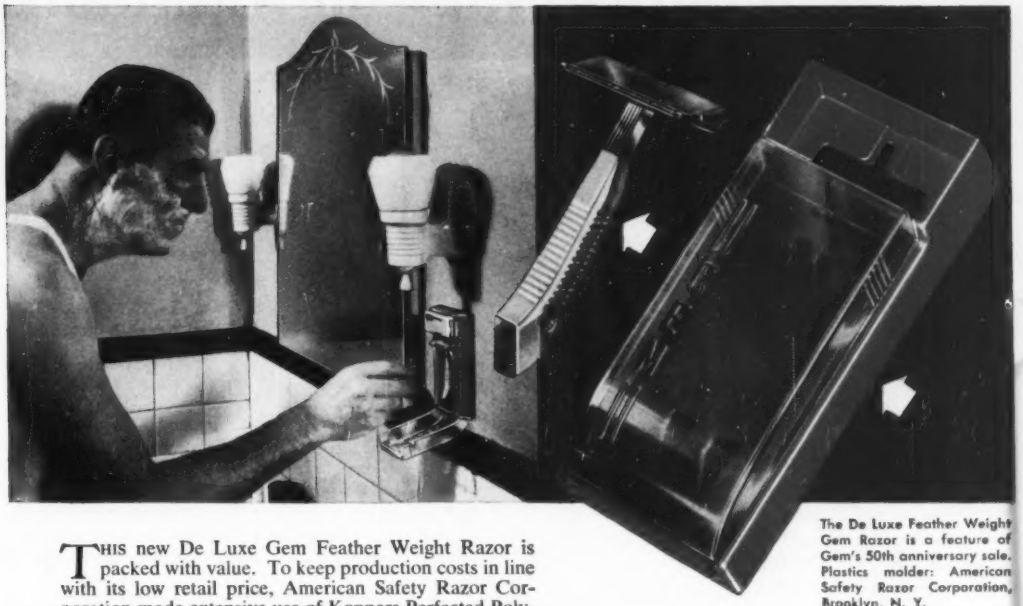
Send for Free Closure Survey Report. Every packaging man needs this fact-packed data. Report proves barmen prefer wood-top cork closure 2 to 1 over any other type. Write for copy today.

Dodge

CORK CLOSURES

DESIGNED TO GUARD THE INTEGRITY OF THE CONTENTS

To shave production costs GEM used Koppers Polystyrene



The De Luxe Feather Weight Gem Razor is a feature of Gem's 50th anniversary sale. Plastics molder: American Safety Razor Corporation, Brooklyn, N. Y.

THIS new De Luxe Gem Feather Weight Razor is packed with value. To keep production costs in line with its low retail price, American Safety Razor Corporation made extensive use of Koppers Perfected Polystyrene.

THE HANDLE is molded from Koppers Polystyrene 8X. High heat distortion temperature . . . fast, easy moldability . . . light weight (the entire razor weighs only an ounce) made Polystyrene 8X the ideal material for this application.

THE CASE is molded from Koppers Polystyrene 3X. The transparent, hinged cover—made of crystal-clear, jewel-like Polystyrene 3X—displays the product perfectly. The case proper is a lasting, stable red—no weak, limpid coloration. It can't rust, corrode or deteriorate.

Koppers experience in molding techniques and the assistance of Koppers technical experts played an important part, too, in solving production problems and developing a perfect molded project.

You, too, can take advantage of the lower material costs, lower molding costs and improved product appearance that result from using Koppers Perfected Polystyrenes. Mail the coupon below for a copy of "Koppers 1950 Polystyrenes."

KOPPERS POLYSTYRENE gives you all these advantages

- **Low cost**
- **Light weight—more pieces per pound**
- **Excellent dimensional stability**
- **Excellent electrical properties**
- **High heat distortion temperature**
- **Good chemical and moisture resistance**
- **Tasteless and odorless**
- **Unlimited color range**

Koppers Company, Inc.
Pittsburgh 19, Pa.
Chemical Division, Dept. MPG-5

Please send your booklet on Koppers 1950 Polystyrenes.

Name.....

Company.....

Address.....

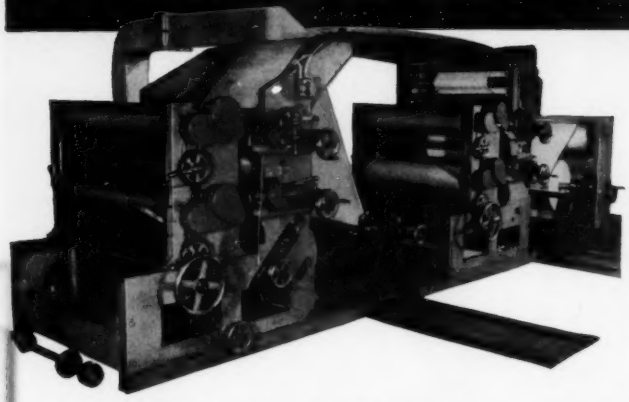
City.....State.....

Koppers Perfected Plastics

KOPPERS COMPANY, INC.
Chemical Division Pittsburgh 19, Pa.
Regional Offices: New York, Boston, Philadelphia, Chicago, Detroit and Los Angeles

KOPPERS

A Great Advance In Bag Manufacturing and Printing



The Nilsaton Multi-Color Printer

Sandy Hill, one of the leading names in the manufacture of paper and pulp mill machinery, now brings to American processors the famous Nilsaton Printing Presses designed by one of the largest converters on the European continent.

Complete Elimination of Rubber Rolls

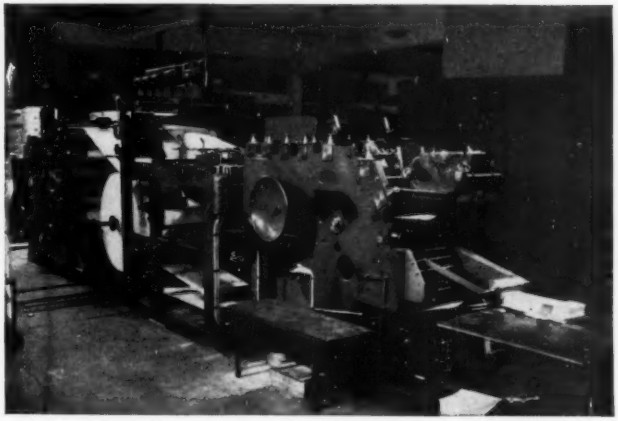
results in reduced color change and wash-up time and remarkable savings in inks. Seasonal and climatic rubber roll problems are also eliminated. A wide range of oil, aniline and pigment inks may be used.

High Grade Printing on Many Materials

The Nilsaton produces excellent results on films (Cellophane, pliofilm, etc.) tissues, decorative gift wrappings, labels, boxboards and can stock, specialty papers and foils.

The Nilsa Automatic **Bag Machine** *coupled with* 2 or 3-Color Printer

Now 2 or 3-color jobs can be printed and formed in a simple, continuous operation. Four machine types, the 30, 40, 50 and 60 cover the standard range of bags from 1/4 to 25 pound sizes in the single or multi-wall SOS type bags with many special attachments for such items as window bags and dust-proof bags. Under normal conditions the average speed of production is twelve to fifteen thousand bags per hour. One operator reported a waste of less than 1% in more than a year and a half of running.



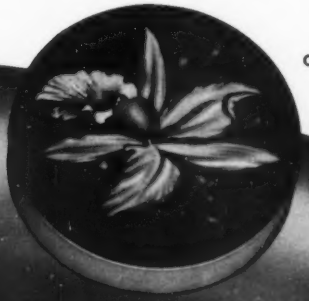
★ *Extreme Accuracy*
★ *High Speed*
★ *Quick Start-ups*
★ *Running Waste at Minimum*
★ *Time Saving on Specialty Bags*
★ *Change Time at Minimum*

Sandy Hill Iron & Brass Works

Hudson Falls, N. Y.

Pulp and Paper Machinery Specialists

As colorful as a rainbow



ORCHID

MORNING GLORY

SLEIGH

as gay as the clouds...

PUPPIES

LUNCH BOX

these attractive containers . . . including many other distinctive designs, are made in popular sizes.

samples and quantity prices submitted upon request . . .

Quality OLIVE CAN COMPANY *Service*

MANUFACTURERS • DESIGNERS
OF PLAIN AND LITHOGRAPHED
METAL CONTAINERS

450 N. LEAVITT STREET, CHICAGO 12, ILLINOIS

Build Sales ON "ACQUIRING" LOOKS

WITH

LUMARITH*

LOW-COST TRANSPARENT SHEET

Here is a glamor packaging material at a cost that's right even for low-price merchandise. This new economical acetate sheet is available from stock in a variety of gauges, sizes and continuous rolls. Call a Celanese representative for more information or write: Celanese Corporation of America, Plastics Division, Dept. 8-E, 180 Madison Avenue, New York 16, N. Y. In Canada: Canadian Cellulose Products, Ltd., Montreal.

Celanese®

*Reg. U. S. Pat. Off. **PLASTICS**

The Lendave bon voyage container of transparent sheet costs no more than a wicker basket . . . fruit is displayed yet fully protected . . . no costly packaging skill is required to produce a sales-appealing, more attractive gift box.

Today's retail landscape is a packaging masterpiece

To a wideawake merchandiser's eyes the colorful mounds and ledges of cereals, soap flake cartons, cheese packages, baked goods, and packaged fruits and vegetables in any up-to-date supermarket can bring a sparkle that is first cousin to the gleam in the eye of the scenery-loving tourist viewing the Berkshires, the Smokies, or the High Sierras.

America's varied panorama of outdoor scenery has its points. So does America's retail scenery.

For one thing, those mountains of merchandise don't stand still. They *move* in a continuous flow of brightly packaged, well-protected, easily handled cartons across retail counters into the hands of U. S. housewives who find shopping more pleasant and home storage more convenient because of developments sponsored and followed through in U. S. industry's busy and resourceful packaging departments.

Art lovers may acclaim the old masters—but admirers of smooth-flowing profitable retail sales turnover acclaim the *new* masters of packaging achievement whose masterpiece is today's inviting retail landscape.

• • •

To help U. S. industry's mountains of merchandise arrive at retail outlets in top condition is a main responsibility of containers produced by the complete and coordinated facilities of PLANNED PACKAGING. To help them move across retail counters into the hands of consumers with maximum convenience and economy is a responsibility equally well performed by our folding cartons.

Planned Packaging MOVES MERCHANDISE

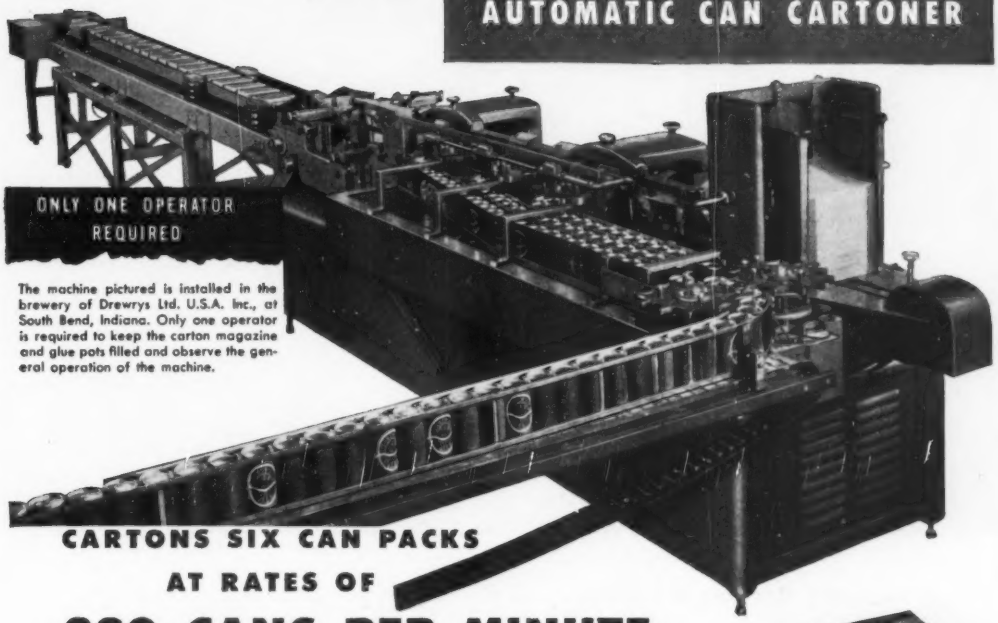
THE OHIO BOXBOARD CO.

RITTMAN • OHIO

Manufacturers of paper board, folding boxes, corrugated and fiber shipping containers, and converted specialties

SALES OFFICES: RITTMAN • AKRON • CUYAHOGA FALLS • TOLEDO • CLEVELAND • COLUMBUS
CINCINNATI • YOUNGSTOWN • MANSFIELD • PITTSBURGH • NEW YORK • CHICAGO

NEW ROCKWELL *Continuous Motion* AUTOMATIC CAN CARTONER

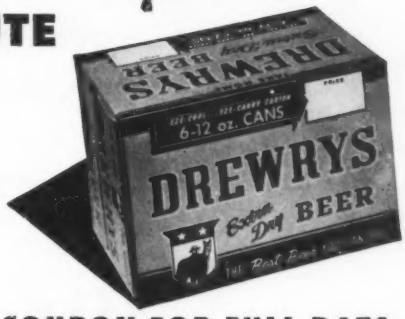


The machine pictured is installed in the brewery of Drewrys Ltd. U.S.A. Inc., at South Bend, Indiana. Only one operator is required to keep the carton magazine and glue pots filled and observe the general operation of the machine.

CARTONS SIX CAN PACKS AT RATES OF

330 CANS PER MINUTE

AND UP!



This Rockwell fully automatic machine is a recent development for the brewery trade. It feeds six cans of beer at a time into automatically selected, erected and timed cartons at rates of 330 cans per minute or higher, if required.

Cartons are glue sealed under pressure and are designed with either four flaps on each end to form a completely closed package or, alternately, with three flaps and a hand-hole in the top panel for carrying ease. Safety switches are provided throughout to shut off the machine should shortages occur in any of the supply lanes.

To get full facts on this speedy, economical new way to carton multiple packs of cans mail the convenient coupon.

OUR BUSINESS IS TO SAVE YOU MONEY

CLIP COUPON FOR FULL DATA

ROCKWELL PACKAGING MACHINES, INC.
Subsidiary of Rockwell Manufacturing Co. BS003
Box 314, Hudson, N.Y.

Gentlemen:

Please send me full information on Rockwell automatic can cartoners.

COMPANY.....
STREET.....
CITY.....ZONE.....STATE.....
YOUR NAME.....POSITION.....

Alford Cartons, a subsidiary of the largest producer of high quality grades of boxboard for the general market, again resumes as an integrated operation, using Continental Paper Company's fine board.

Uniform quality consistent policy, dependable service, yours from . . .

Alford Cartons

CONTINENTAL Paper Company

RIDGEFIELD PARK, NEW JERSEY

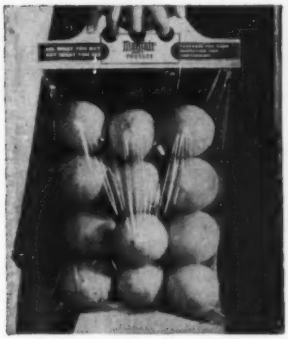
EXTRA! **NEWS!** EXTRA!

DENT-O-PAK Bags Boost Sales plus BIG Dealer Savings Over Bulk!

Several million Dent-O-Pak bags using Goodyear pliofilm have already been supplied to the apple packers in 3# and 5# sizes and this coming season The Denton Corporation has developed plans that will make it possible for apple packers to pack in Dent-O-Pak bags at a cost equivalent to the bulk pack. The dealer can save about 40 cents a box handling bagged apples as against bulk.

FOR ORANGES

More and more oranges are being packed at the dealer level in Dent-O-Pak pliofilm bags. Some enterprising orange packer, packing a good quality orange, can cash in on the very real demand for bagged oranges.



. . . and now for ASPARAGUS

(NEW THIS YEAR). This is a new item being packed in the Dent-O-Pak pliofilm bag. One of the largest California packers has purchased a Dent-O-Matic packaging machine designed for this purpose and finds the combination of this machine and the Dent-O-Pak bags the ideal solution for the packaging of this fine vegetable.

FOR APPLES

DENT-O-PAK BAGS*

Have these exclusive advantages

1. Dent-O-Pak pliofilm bags save fruit and vegetables from dehydration and flavor loss.
2. They greatly increase shelf life of all produce.
3. They speed up packing operations.
4. They decrease dealers' handling costs.
5. The housewife can see exactly what she is buying.
6. They prevent unsanitary and damaging handling by the public.

*Pats. pending

MAIL COUPON FOR DETAILS NOW!

Please send samples and information on packing

(name products)_____

Name_____

Address_____

City_____ Zone____ State_____

FOR LIMES

California limes are moving in large volume in Dent-O-Pak pliofilm bags. Florida lime growers are also beginning to pack in these bags.

FOR CHERRIES

Last year several million Dent-O-Pak pliofilm cherry bags were supplied to packers and this year the number of packers and the number of Dent-O-Pak bags will be greatly increased in both pliofilm and lumarith.

The DENTON Corporation

2124 LIVINGSTON STREET, OAKLAND 6, CALIFORNIA • KELLOG 4-5615

here's a slick trick—

Here's a slick trick to encourage youngsters' appetites. Small fry love the way Lincoln strawberry flavoring "changes" regular milk into a brand new taste treat.

Lincoln Foods Inc. of Lawrence, Massachusetts, makers of this product, is another of the many food packers who seal their products with Crown Screw Caps. These caps have the Crown Deep Hook Thread, a special thread of patented design, which exerts greater sealing pressure without side scraping or binding. Crown's wide variety of liners is something special, too. Many have been developed in Crown's own laboratories to meet the sealing requirements of specific products.

Talk to Crown before deciding on the closure and liner for your product. Crown has the laboratory facilities and the technical sealing knowledge to help you determine the cap and liner that is scientifically correct for your particular needs. This service is available to all food and drug packers without cost or obligation. Crown Cork & Seal Company, Baltimore 3, Md. *World's Largest Makers of Metal Closures.*

Approved by Millions of Housewives

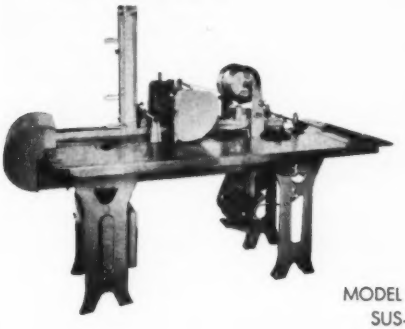
CROWN CLOSURES

PACKAGE BUNDLING

in cellophane
on SCANDIA machines—*

Suggests the MASS DISPLAY ADVANTAGE

A SERVICE
TO RETAILERS
THAT HELPS TO SELL
MORE MERCHANDISE



MODEL
SUS-6

All-round PACKAGE VISIBILITY, with a decided saving in wrapping materials—a "fresh-as-a-daisy" appeal inviting retailers to set up the complete package in valuable display space . . . and wrapped at high speed with *positive* seal against atmosphere. Ask about BUNDLING, individual packaging, MULTI-PACKS, and BANDING, on Scandia machines . . .

Scandia

MANUFACTURING COMPANY

NORTH ARLINGTON NEW JERSEY

**manufactured under Bronander patents.*

"PROTECTION is the FIRST function of PACKAGING"

Says

WILLIAM LONGYEAR

Designer for Commerce and Industry, and Chairman of the Department of Advertising Design (Packaging) at Pratt Institute.

Keeping the product sold... protecting all its qualities from factory to consumer ...is the first function of a good package. That's why the men who design sales-winning packages always stress the primary importance of product protection.

Check the sales leaders in field after field and you will find well-engineered packages... and over and over again, you will find a Riegel paper inside. Many other Riegel papers are designed for flexible packages, for laminates, for outer wraps and for almost every requirement in protective packaging... papers that can be relied on for smooth performance on modern high-speed machines.

Tell us your needs, and we believe we can offer you a paper that will do your job... efficiently and economically.

RIEGEL PAPER CORPORATION
342 Madison Avenue, New York 17, N.Y.

Riegel *Tailor-made Papers for Protective Packaging*

BBD *Whiter* WHITE INKS

your best bet for

- *OPACITY*
- *EVEN COVERAGE*
- *MORE MILEAGE*

in ANILINE PROCESS PRINTING

BBD has a WHITE INK for every package printing and converting need

- **EXCELLOPAKE** . . . . for CELLOPHANE, GLASSINE, FOIL and other non-absorbent stocks
- **HYDROTONE** . . . . . for heavy-weight TISSUE, KRAFT, SULPHITE and noiseless Pop Corn bag stock
- **MAT ACETATE** . . . . for all grades of ACETATE
- **FOIL-BRITE** . . . . . for METALLIC FOILS
- **PREPRINT** . . . . . for GLASSINE prior to waxing
- **KRAFT-ANILINE** . . . for KRAFT and colored SULPHITE stocks
- **VELVA-TEX** . . . . . for light-weight TISSUE
- **POLY-PAKE** . . . . . for POLYETHYLENE film
- **VINYL-INE** . . . . . for VINYL film

These BBD inks are also available in full range of standard and special colors.

BBD offers you a choice of *nine* different white aniline inks—each the *whitest* of its type . . . each designed for a specific stock . . . each proved in use throughout the world. BBD whites give you dense, opaque, uniform coverage—print clean and sharp because they don't build up on plates and rollers. Specially formulated to dry at high press speeds according to the stock and equipment with which you use them . . . and give more coverage per pound. Request printed samples and details.

A BONUS for BBD INK users

. . . our famous "shirt-sleeve" technical service by aniline ink specialists. Let a BBD field man show you—on your own press —how to get better print quality.

Bensing Bros. and Deeney

LARGEST MANUFACTURERS OF ANILINE INK IN THE WORLD

401 N. BROAD STREET, PHILADELPHIA 8, PA.

Associated Manufacturing Plants: 81 Albion Street, Wakefield, Mass.; 2358 N. Seeley Ave., Chicago 47, Ill.
Export Division: McLaurin-Jones Co.; 22 East 41st Street, New York 17, N. Y.
West Coast Distributor: A. M. Bojanower, 5270 E. Washington Blvd., Los Angeles 22, Cal.

IRVINGTON PRESENTS

"Ivithene"

POLYETHYLENE FILM, SHEETING, FLAT TUBING, EXTRA HEAVY SHEETING

for the packaging of

foods
chemicals
adhesives
textile pastes
drugs
pharmaceuticals

and other materials requiring

the superior physical protection,

chemical inertness

and **vapor impermeability of** POLYETHYLENE

Now you can count on IRVINGTON as a dependable source of supply for polyethylene products. For IRVINGTON'S "Ivithene" films and sheetings give you the unique chemical and physical properties that distinguish polyethylene – plus the rigid adherence to specifications and close quality control for which IRVINGTON has long been famous.

CHECK IRVINGTON FOR "Ivithene"

FILM . . . for wrapping, automatic bag and packaging machinery.

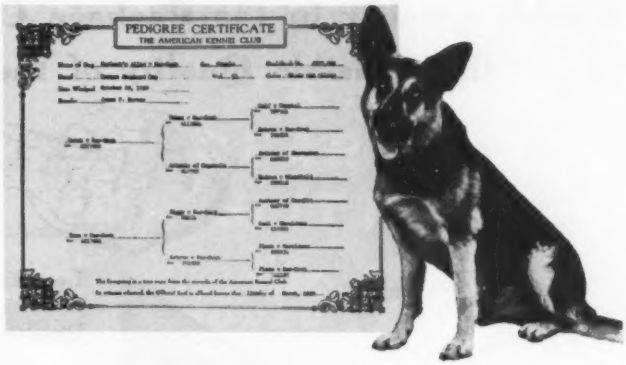
FLAT TUBING . . . seamless; for bags and liners.

EXTRA HEAVY SHEETING . . . for fabrication by all methods into liners, containers, gaskets, etc.

IRVINGTON engineers stand ready to serve you in adapting "Ivithene" to your specific needs. Your inquiry is invited.

IRVINGTON VARNISH & INSULATOR CO., FIBRON DIVISION
Irvington 11, New Jersey

THE SMOOTH-HAIRED GERMAN SHEPHERD is considered by many the king of the working dogs. He is loyal, suspicious of strangers, easily trained and has unusually keen senses of sight and smell. Average height of the breed is 24 inches.



To guard against shipping damage

Use the Box with the Pedigree

WHEN YOU ORDER boxes with a pedigree you can be *sure* the carload shipments you receive will measure up to the same high standards as submitted samples or previous shipment.

That's why Gulf Oil Corporation relies on Union boxes to protect its cans of famous Gulf Oil from refinery to service stations all over the country.

Every month more makers of famous brand products are shipping in Union boxes.

TRADE MARK UNION

Dependable Packaging Since 1872

UNION Corrugated Containers

UNION BAG & Paper Corporation

Principal Offices: WOOLWORTH BLDG., NEW YORK 7, N. Y.

***Corrugated Container Plants:* SAVANNAH, GEORGIA • CHICAGO, ILLINOIS • TRENTON, NEW JERSEY**

Visible Quality in the Package Can Reflect the Invisible Quality of the Product!

Leading Manufacturers of Packaged Food Products, Recognizing That Fact, Give Preference to

Ridgelo
CLAY COATED
REG. U.S. PAT. OFF.
BOXBOARDS

FOR FINE FOLDING CARTONS

- CUSTOM MADE FOR EVERY ORDER
- SUPERIOR PRINTING SURFACE
- BRIGHTER — SMOOTHER
- HIGHER VARNISH GLOSS
- ASSURED UNIFORMITY
- CONTROLLED COLOR MATCHING
- BRIGHT FAST AND SOIL RESISTANT COLOR
- LUSTROUS BRUSH FINISHES AND EMBOSSINGS

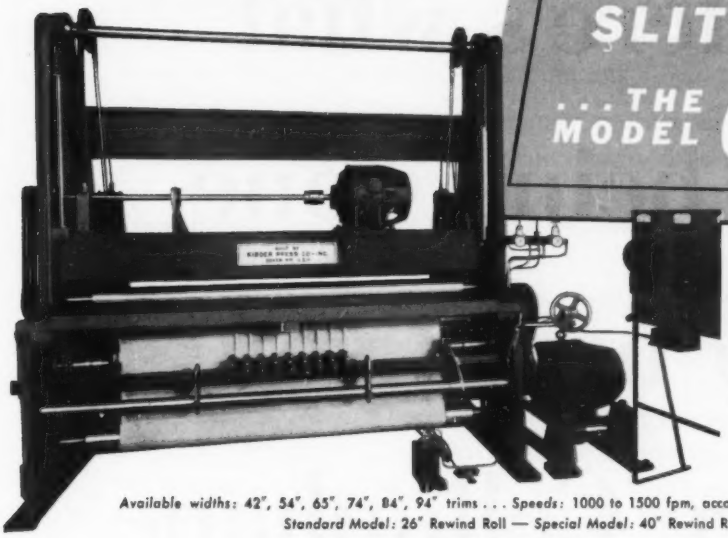
MADE AT RIDGEFIELD, N. J. BY LOWE PAPER COMPANY

Representatives

H. B. Royce, Detroit
Philip Rudolph & Sons, Inc., Philadelphia
A. E. Kellog, St. Louis
Norman A. Buist, Los Angeles

Kidder Announces

A NEW GEARLESS SLITTER ... THE MODEL G.T.



Rugged Enough To Slit 200 lb. Tag Stock... Accurate Enough To Handle The Lightest Tissue

Available widths: 42", 54", 65", 74", 84", 94" trims . . . *Speeds:* 1000 to 1500 fpm, according to type of work . . .
Standard Model: 26" Rewind Roll — *Special Model:* 40" Rewind Roll

G. T. Features For Easier, Lower-Cost Slitting

Gears Eliminated, resulting in greatly reduced upkeep and almost complete silence. V-belts replaceable without dismantling. Rotating members, except mill roll shaft, mounted on sealed anti-friction bearings.

Motor Drive sold as package, including M. G. set. Main motor and mill roll brake on right of machine. Kidder engineers will recommend motors of correct capacity.

Shear-Action Cutting severs web. Shaft-mounted, two-edged back cutters, 7/8" wide, are driven slightly faster than the web. Ball-bearing front cutters, rotating by pressure against back cutters, are kept sharp by latter's harder metal.

Slit Webs Are Wound either on core or on a collapsible shaft, in cradle formed by two drums, under pressure from a third above. The two drums are driven by main motor; top roll is driven by a rheostat-controlled auxiliary motor.

Hardness Controlled by varying pressure and speed of top roll assembly, which is heavy enough to wind the hardest roll. Pneumatic cylinder provides counterbalance ranging from zero to complete lift.

Web Tension is provided by water-cooled, rotating-disc brake. Actual tension control is through pneumatic diaphragm exerting smooth, flexible pressure on the two stationary plates.

Bow Bar helps smooth out wrinkles and handle baggy stock. Bar, adjustable as to angle, can press on web's center or edges, combining with the mill roll's bias adjustment to keep web straight and taut.

Send for complete information on the quieter, smoother-working, cost-reducing Model G. T. Slitter

give you
1. Clean, Accurate Cutting
2. High Speed, Dustless Operation
3. Easy Separation of Rolls

KIDDER PRESS COMPANY, INC.

DOVER, NEW HAMPSHIRE

A. E. MARCONETTI, INC.
Empire State Bldg., New York 1, N. Y.

MACHINERY SERVICE COMPANY
P. O. Box 33, Los Angeles 11, California

C. P. ROBINSON, Special Representative to Paper Mills on Slitters and Rewinders, Graybar Building, New York 17, New York

Here's what is being done to bring you more Cellophane

The Du Pont Company regrets that it is unable, at this time, to meet the growing requirements of its customers for Cellophane. It believes that all those concerned with packaging should be fully informed as to the facts regarding the shortage and what is being done about it.

Several years ago, Du Pont foresaw a substantial increase in the use of Cellophane and planned to build additional plant capacity, to become available about the middle of 1949, in order to take care of the expanding market.

Preliminary plans, estimates and investigation of plant sites were well under way when the Department of Justice brought suit in December 1947, charging that our position in the Cellophane business constitutes a monopoly.

The Du Pont Company is resisting to the fullest extent the charges brought by the Department of Justice, but, pending the outcome of this litigation, it was considered unwise to proceed with the proposed construction.

Du Pont, therefore, actively sought to interest others in the manufacture of Cellophane, in order that additional film would be available to the trade as soon as possible. It required more than a year and a half to find a company willing and able to invest the large amount of capital—approximately $20,000,000—necessary to enter the field on an economically efficient basis.

Now, construction is under way on a new Cellophane plant, designed and being built by Du Pont for Olin Industries, Inc., at Pisgah Forest, North Carolina, to have an initial capacity of about 33 million pounds annually. All Du Pont Cellophane patents and know-how are being made available to them. It is hoped that this plant will be in production by the middle of next year.

In addition to this, other manufacturers of transparent films have announced in the public press substantial increases in their production facilities during the current year.

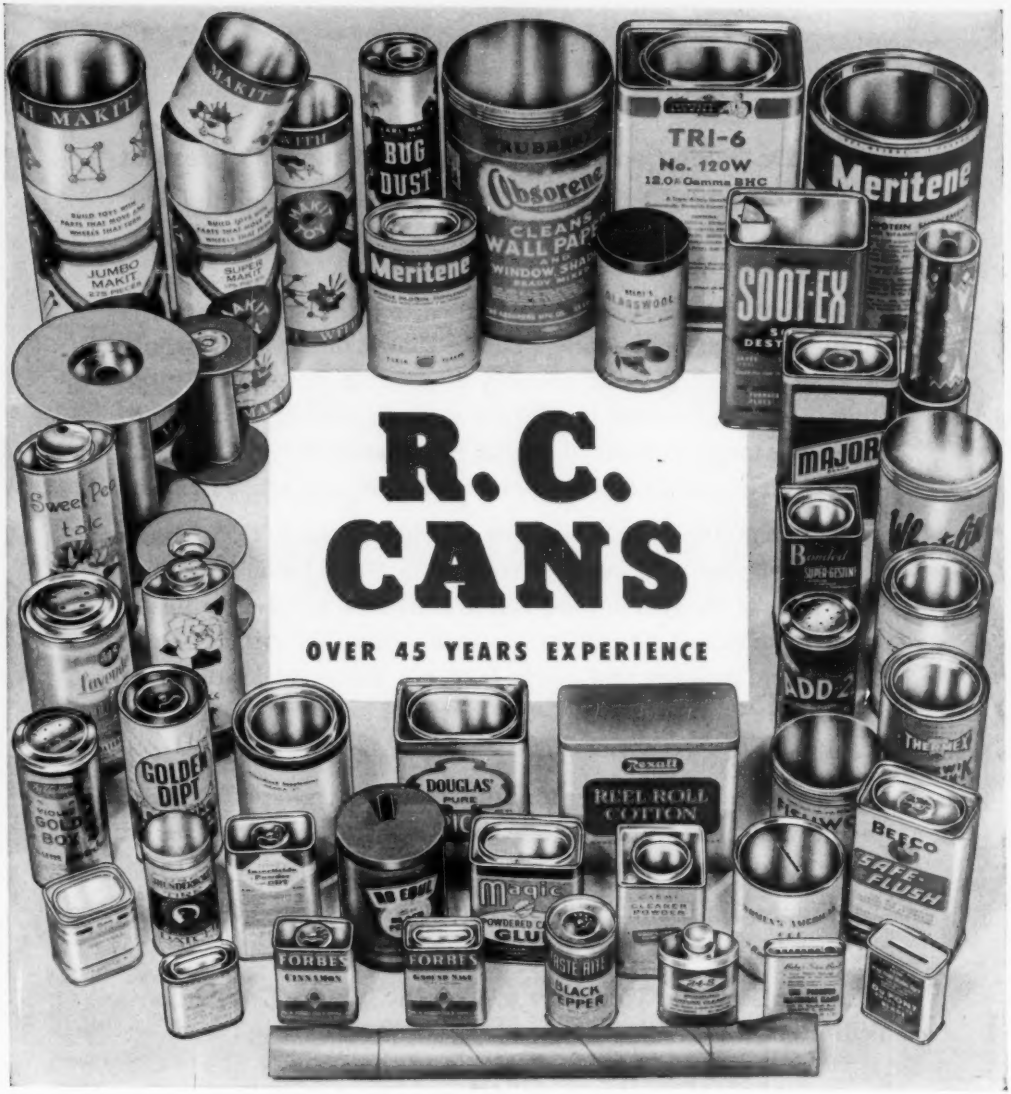
Thus the supply of Cellophane will be increasing from now on, even if not from Du Pont at this time.

E. I. du Pont de Nemours & Co. (Inc.), Film Department, Wilmington 98, Delaware.

DU PONT

REG. U.S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING . . . *THROUGH CHEMISTRY*



FOUR STRATEGIC LOCATIONS FOR SPEED AND CONVENIENCE

R·C· CAN COMPANY

R. C. CAN CO. The Stamp of Quality ST. LOUIS, MO.

MAIN OFFICE and Factory **103 Chambers St., St. Louis 6, Mo.**

Branch Factories: **Arlington, Tex.; Rittman, O.; Kansas City, Mo.**

SALES OFFICES

C. E. DOBSON, 819 Carondelet Bldg., New Orleans 12, La. R. C. CAN CO., 225 West 34th St., New York N. Y. L. C. MORRIS Co., 1125 Spring St., N.W. Atlanta, Ga.
S. W. SCOTT, 608 McCall Bldg., Memphis 3, Tenn. E. F. DELINE CO., 224 W. Alameda, Denver 9, Colo. W. L. BENNETT, 126 S. Third St., Minneapolis 1, Minn.
CAN SUPPLY CO., 1006 W. Washington Blvd., Los Angeles, Calif. C. J. TAUGHER, 1628 W. Wisconsin, Milwaukee 3, Wis.

SAFETY
in Shipping
DRAMA
in Display...

Get both with Farrington's exclusive Duroframe Construction

Gone forever is the "old hat" theory that a package cannot combine beauteous grace with dependable rigid strength.

As with so many other Farrington-first developments in packaging, Duroframe construction fulfills a long-sought need. For here is the ageless strength of metal . . . skillfully drawn and shaped to fit and protect its content . . . artfully covered in genuine leather or in lush, plump, leather-like Texol to grace the finest product.

And in instances such as Jacoby-Bender's watch bracelet display kit, shown above, there's the thrifty bonus of re-use value . . . obtainable only when your package has good looks and long life *built in.*

What's more, the cost of Farrington Packaging is rarely prohibitive. Let us make a date to show you why.

FARRINGTON MANUFACTURING COMPANY
GENERAL OFFICES: 80 ATHERTON ST., BOSTON 30, MASS.
CANADIAN PLANT: FARRINGTON MFG. CO., LTD., 1191 BATHURST ST., TORONTO 4

PACKAGED BY
Farrington

DISPLAY PACKAGES • JEWEL CASES • METAL SPECIALTIES • CHARGA-PLATE SERVICE

of a series on how "Nashua's Knack" Pays Off in Better Wrapping, Sealing, Labeling

For Packaging Design and Printing that Hits Harder, call in NASHUA'S Specialty Printing Division!

Versatile division of a versatile company, Nashua's Specialty Printing Division are specialists in the design and printing of colorful SELLING Packages by rotogravure and aniline processes in rolls.

Whether the wrapper is printed tissue, printed glassine or printed transparent film, Nashua's diversity of experience means top eye-appeal and buy-appeal for your packaging money. An ever-growing and diversified list of customers who market candy bars, potato chips, paper napkins, polishing cloths, toilet paper and other products have found that Nashua's a helpful partner in pushing sales curves upwards.

NASHUA BRANCH OFFICES

BALTIMORE, CHICAGO, DETROIT, LOS ANGELES, NEW YORK, SYRACUSE, N. Y., PHILADELPHIA, COLUMBUS, O., SAN FRANCISCO

NASHUA GUMMED AND COATED PAPER COMPANY
NASHUA, NEW HAMPSHIRE

NASHUA
MAKES PAPER MAKE MONEY FOR YOU

Modern packaging

Vol. 23 No. 9 May 1950

GIFTS THAT WIN SALES

MORE THAN EVER, GIFT GIVING IS A YEAR-AROUND HABIT; PACKAGERS PLANNING FOR IT ARE BUILDING PROFIT MARGINS

It used to be that gift packaging was a once-a-year proposition—usually a big rush to dress up all manner of goods for Christmas holidays, with only spotty activity throughout the year by firms aiming for the birthday business, weddings, births, anniversaries and graduations.

Today gift packaging is a year-around big business for the producers of thousands of items from diamond bracelets to dish towels, from hardware to smoked hams.

Every possible event has been made the occasion for a gift. A business trip usually means a present for the wife and a toy or two for the kids; a dinner invitation to someone's home means a bottle of liquor for the host and maybe a box of candy for the hostess. A week-end invitation means that you take a present to the hostess or to the children, or send something later. When your friends go on a cruise, you say "Bon voyage!" with a gift sent to the ship. When they come back, they bring something to you. If they move into a new home, you are very likely to give them something for the house. Then there are the increasing number of seasonal occasions when people give presents—Valentine's Day, Easter, Mother's Day, Father's Day, Thanksgiving as well as all the special holidays of various religious and nationality groups. And of course you don't forget the anniversaries and the birthdays.

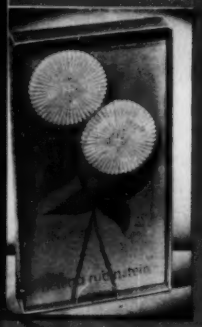
Most people don't keep track of the number of gifts they buy in a month or a year—but the total volume is tremendous. Attractive packaging, designed appropriately for these many occasions, or suitable for the year-around occasional gift, has been a strong influence in developing the additional business to be had from the increasing American custom of gift giving beyond the traditional Christmas, birthday and wedding gifts. More and more frequently manufacturers of countless items include the planning of gift promotions as a regular phase of their packaging programs.

Because of this widespread interest in selling all manner of goods as gifts, competition for gift business is growing keener and packaging for this market becomes a specialized problem of over-all packaging procedure, requiring particular market study and special treatment to meet timely requirements.

1. MANY-SIDED folding box, foil laminated, is a new conception in carton making. It is used by B. Altman & Co. for gift certificates. Ribbon makes it a Christmas-tree ornament.

Today firms with long experience in gift packaging know that 1950 shoppers are looking for value, whether they are buying necessities or luxuries. With the many competing brands and an ever-increasing variety of merchandise to select from, they are becoming

UNUSUAL TOUCHES THAT SHOPPERS LIKE



2. LEAF design on die-cut box platform makes plastic perfume compacts appear as flowers through transparent cover.

3. MAIL BOX for Helena Rubinstein's Mother's Day promotion of "Command Performance" set has sachet tucked in letter slot.

a great deal more particular about what they buy. To attract their purchases, the gift package must offer more, be a little more "out of the ordinary" than has been the case in the last few years.

Another factor contributing to the need for better gift packaging is the continued shortage of adequately trained store personnel, which means that the package often must practically sell itself.* Retailers want gift packages that are sturdy for handling, easy to set up. Some retailers are demanding more flat boxes, especially for volume stores, saying irregular shapes take up room and are hard to stack. Manufacturers, however, should not let this influence their gift-packaging design too strongly, or all individuality will be lost.

This year's gift packaging calls for the greatest ingenuity. Designers with ideas for fashioning new materials and old ones into gift packages that provide the added touches to give broader appeal will now be in high demand

This year is also a time when no manufacturer can afford to cut corners on gift packaging. Costs of packaging materials and labor are high and many firms will argue that they can't afford added expense, but there are many instances where they will have to spend money to make money. A gift package that is only half good is probably worse than none at all and won't have much chance of success beside others which are better because the manufacturer was not afraid to spend slightly more for his package.

This is not a recommendation for waste of money on lavish gift packaging that forces an item to carry a load in excess of what its selling price will bear, but does mean that every user of gift packaging this year should:

1. Make sufficient allowance in his budget for gift packages to meet the needs of today's value market.

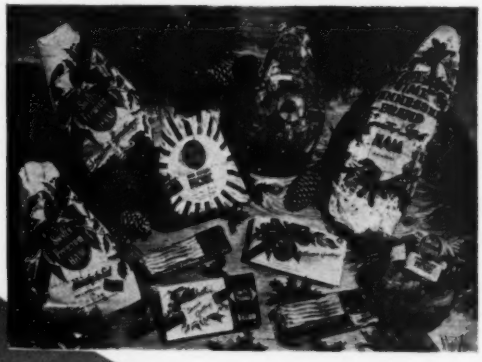
2. Use the many packaging materials at his disposal in a way that will make shoppers stop, look and buy.

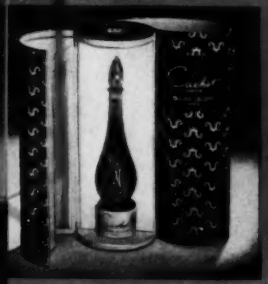
In doing this, it is not always neces-

* See "Mass-Market Packaging," MODERN PACKAGING, April, 1950, p. 115.

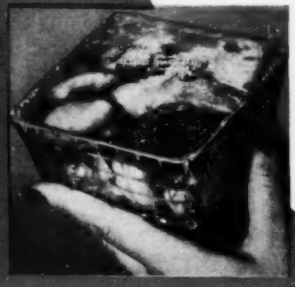
PLASTIC berry box has been adapted as a sampler assortment for cookies. Product is visible, but protected by cellophane wrap.

7. CHRISTMAS WRAPPERS for hams and bacon are used widely by large packers to stimulate gift sales. Shown here is Swift's line of Christmas-wrapped products.

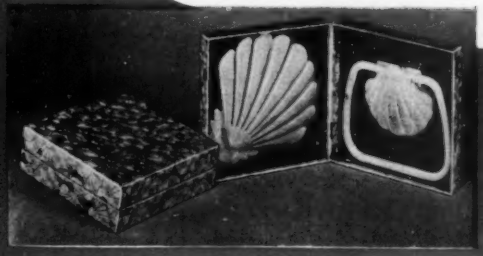




4. PURE SILK covers a paper-backed scroll around two-piece cylindrical box holding graceful bottle for Lucien LeLong's new perfume, "Cachet." Label is also pure silk.



5. A SATIN PARASOL holds six pairs of Schiaparelli nylons—a dramatic way to stimulate gift sales.



8. SET-UP BOX, hinged, velvet lined and covered with privately designed iridescent sea-shell paper, makes an appealing setting for this matching stocking dryer and towel-rack set of plastic and designed in shell shape.

sary to strive too hard for something radically new in basic materials, but to adapt and combine the hundreds of packaging embellishments that are ready for new interpretation in the hands of expert designers.

Decorative papers are more beautiful than ever, with designs and patterns appropriate for every type of merchandise and there are endless possibilities for private designs. Suppliers' lists reveal many newly styled boxes and cartons; metallic foils printed in new colors and designs; ribbons and ties in all types of fabrics, paper, plastic laminations and cellophane; tags and labels to meet every requirement; rigid transparent boxes to meet the increasing need for visibility packaging; transparent films for every purpose; drawn, fabricated and molded plastic containers; stock and private-mold glass and plastic bottles in a variety of shapes; lithographed metal containers in hundreds of decorative effects; wood, pottery, leatherette and molded-pulp containers—even textiles, from burlap to pure silks.

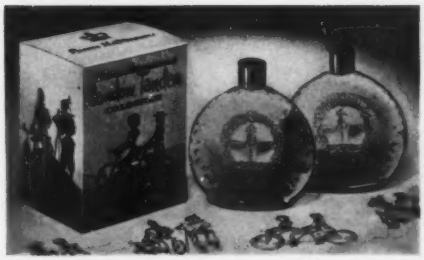
Most suppliers, because they too must work hard to meet competition this year, will cooperate closely with you in the development of packages that will spell success.

The folding carton

A very good example of what happens when ingenuity is put to work is the increasing use of the folding carton for gift packaging. The same opportunity awaits users of many other types of packaging if the same kind of clever thinking is applied.

Within the last few years the folding carton, formerly regarded mainly as a utilitarian container for cereals and soap flakes and such, has moved up to a high-ranking position in decorative gift packaging. Novelty constructions, improved methods of color printing, laminations of carton board with metallic foils, acetates, etc., have gained a conspicuous place for the folding carton in the gift packaging of hundreds of items including confections, cosmetics, household linens and sheets, towels, hosiery, toys, lingerie, wines and liquors, tobacco products and many other types of merchandise in traditional gift categories, as well as in many new fields.

A particularly striking example is the odd-shaped patented container of folding construction adopted last year by B. Altman & Co. as a package for Altman gift certificates. It is made of one piece of board, but so cleverly die cut and scored that when set up it becomes a many-sided geometric figure

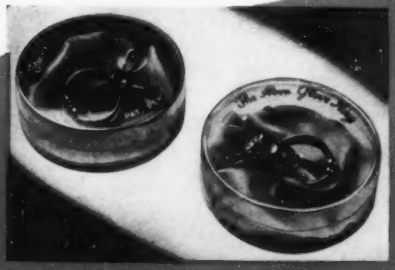


13. PRINTED OSNABURG with nautical design makes a "sea-going" package for assortment of West Coast sea foods. Label is held on with rope.

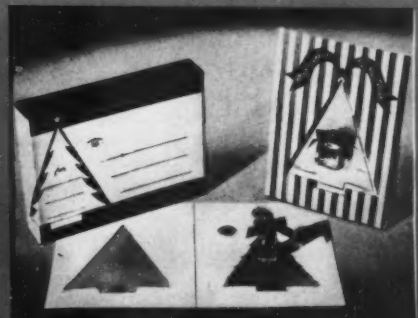
14. FOLDING CARTONS are conspicuous in today's gift packaging because of their original touches. Here flocked green paper gives realistic effect of grass below printed figures of tandem riders.

12. CHARACTER BOXES may be created when imagination is used in their decoration. This Lentheric box becomes a Santa Claus with positioned printing, pieces of felt, feather beard and a Christmas-tree ornament.

11. A TRANSPARENT package shows off Hattie Carnegie's famous head-and-shoulders bottle. Lavish papers flecked with metallic snowflakes, decorative sprigs of pine and velvet ribbons make Carnegie wraps distinctive.



9. NEW PRODUCTS like these rings for attaching gloves to purse gained popularity in transparent boxes: one all acetate, the other with acetate cover and foil-laminated base.

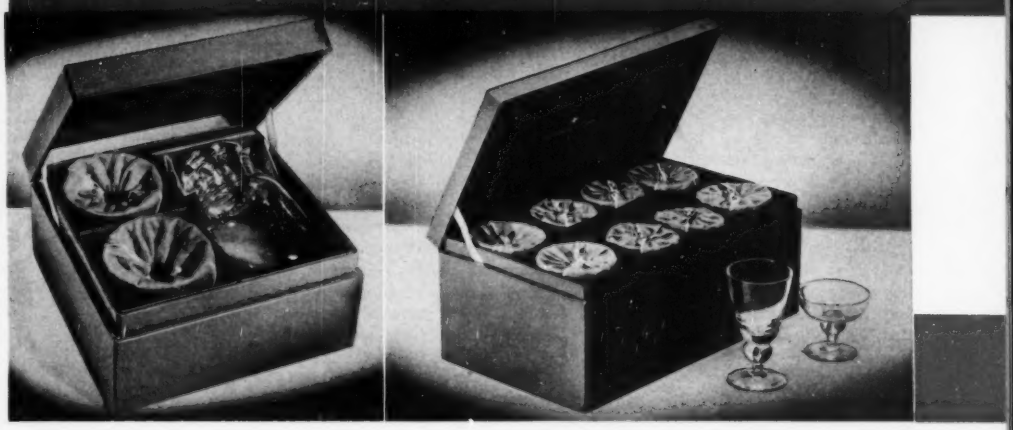


10. READY-TO-MAIL is this greeting-card package saying "Merry Christmas" with a one-dram bottle of Lentheric perfume.

GIFT PACKAGING
THE COMBINATION UNIT

15. SET BOXES for cosmetics and perfumes are hardy perennials. One of the most successful users of combination gift packages in this field is Bourjois for "Evening in Paris."

16 and 17. POPULAR GIFT UNITS are being suggested by the combination package for highest-priced luxury items. Steuben Glass now offers a smart cocktail service for two in a sturdy chest-like box, each item placed in a flannel bag. Another unit, similarly packed, contains four goblets and four champagne glasses. Boxes and bags are suitable for permanent storage of the glass in the home.



for use as a Christmas-tree ornament when hung up by an attached ribbon loop. The printed aluminum foil laminated to the carton board adds color and brilliance to the package. These little containers are shipped flat to B. Altman & Co. where they are set up. The rolled-up gift certificate is slipped into a circular die-cut opening below the scored folding cover.

It took two leading design engineers, one of the country's outstanding designers of type faces (who styled the B. Altman monogram for the surface of the unusual container) and the cooperation of a clever carton maker to develop this package. It is an outstanding example of how something new can be created from well-known forms and materials. It also shows the wisdom of employing expert design service for package planning.

Where to get ideas

Most packaging ideas are eclectic—that is, they are the result of selections and rejections from many sources. Sometimes a successful gift package may be developed by patterning it after the leaders in a certain field, sometimes doing it better. But more often the outstanding package is the result of a combination of ideas found through study of many entirely different fields—the cosmetic firm borrowing something from the candy field, the maker of fine glass getting a suggestion from the packaging of sterling silver, etc.

On these pages are illustrations of packages in numerous categories from the highest-priced luxury items to those in mass-market, popular-priced brackets. They are presented, after careful selection, as sources for directing thinking into channels for new and more effective use of the wonderful glamour aids of packaging that every packager has at his command today.

When you are looking for the utmost in elegance, for instance, you will be interested in seeking examples such as Lucien LeLong has created for his new perfume, "Cachet," an elaborately fashioned two-piece cylindrical box held together with a scroll of pure French silk print, paper-backed to give it body, tied with a piece of red dressmaker braid and identified with a specially printed pure silk label. The bottle is an exquisitely graceful private mold in frosted glass with floral design, originally made in France, but now being made in this country as well. This package won

22. JEWELRY TRADE has been highly successful with molded plastic packaging. This is a new polystyrene and velvet case for Bulova watches.

18. CARRY-HOME CARTON for Venetian Gems plastic tumblers has a three-fold purpose. It serves as a shipper, a take-home pre-package and an appealing gift package.

19. EIGHTEEN ITEMS packaged by Holland House as a hospitality bar is a new way to sell cocktail mixes.

20. DISPLAY CARTONS offer counter as well as gift appeal for various assortments of preserves prepared from favorite old Ohio recipes and sold by J. M. Smucker Co.

21. LITTLE GIRLS as well as shoppers who buy for them are intrigued with this travel case of folding-carton construction which holds three pairs of lace-edged panties made by Rhinette, Inc., and called "The Rhinette Pantyrama." Front-panel window permits visibility.

this year's *Beauty Fashion* award for packaging. Definitely a costly package for a luxury product, it reveals many basic ideas of good taste that can be applied to all decorative package design.

Sometimes a gift package must carry out a theme appropriate to the product. Those looking for such packages will seek examples like North Star Inc.'s Sea Bag—a simple osnaburg bag, all-over printed in green with a design of shell fish and tied with a sea-going knot, promoted as a sampler gift unit for a dozen cans of West Coast sea foods.

Stockings need special presentations to stimulate their sale as gift items. Look how Schiaparelli created counter excitement by fashioning a tiny shocking-pink parasol, lace edged and lined with her Sleeping Blue, as a container for six pairs of supersheer nylons.

The distributors of wines and spirits have been most active in the development of gift packaging during the last year and their packaging shows wide variety. Most unusual, for sale in states where the size is legal, is Monnet Anniversaire Cognac in 1-oz. miniatures, packed 24 to an attractive wooden case with a red seal on the outside, packaged in France and distributed by National Distillers Products Corp.

Many producers of small items are interested in packages that may be used as mailers. Of wide interest to them, therefore, are the clever new mailers several of the perfume houses have designed to carry tiny flacons of perfume. They look like greeting cards and are sold with attractive mailing cartons, ready for addressing and a stamp.

Many tips on gift packaging may be gained by a study of the jewelry field. Here the molded plastic container has been a wonderful business builder—as witness the experience of the Speidel Corp. with its unusual, sales-stimulating packages* for metal watch bands. Other manufacturers have had similar success with plastic packages for watches, bracelets, necklaces, pearls, men's tie clips, belt buckles, cuff links and children's jewelry. Beautifully made set-up boxes, many of them leatherette covered and metal trimmed, have also been a boon to the successful presentation of jewelry of all types.

There are countless ways to package baked goods as gifts, but something really out of the ordinary is the adoption of the lattice container of poly-

23 and 24. TOBACCO PRODUCTS are always high-volume items in gift sales, but need seasonal treatment for gift promotions. The King Edward cigars are automatically wrapped with gaily printed cellophane. The Half and Half carton is printed by rotogravure in six colors and varnished.

* See "Upgrading the Watch Band," Modern Packaging, Aug., 1949, p. 106.

25. FLOUR SIFTERS, egg beaters and meat choppers became popular gift items when pre-wrapped by the Washburn Co., the manufacturer, in Christmas wrappings, ready for retail sale without further packaging. Wraps are removable after holiday season.

26. PROPER DISPLAY is essential to gift selling. This features Dobbs "coach and pair" trademark as background for Dobbs plastic miniature hats and hat boxes to hold Dobbs gift certificates.

styrene plastic, originally used for strawberries, by the Deer Park Baking Co. of Chicago as the package for a sampler assortment of cookies. Cellophane wrapped, the cookies are well protected, but visible on the counter, and the recipient has a container that may be re-used for a number of purposes.

Some bakery firm should investigate quickly the possibility of using as a gift package for cookies the new type of lithographed can now available with a dehydrating arrangement in the lid, similar to that used sucessfully for salt shakers, to keep the cookies fresh. This can could be a re-use container that would greatly please the housewife and offer an excellent premium gift package to the firm who first uses it.

Wrapped pre-packs

Many manufacturers are finding retailers very receptive to colorful gift pre-packs using simple special-occasion wraps that not only save wrapping time, but encourage the sale of many items as gifts which would not ordinarily come within that category. Last year, for instance, The Washburn Co., Worcester, Mass., and Rockford, Ill., selected eight household items—three flour sifters, a nut-meat chopper, a beater-bowl set, egg beaters and a barbecue set—and wrapped them in six designs of Christmas paper to distinguish the items. Seals to secure the paper carried the number and color of the item imprinted for quick identification. No charge was made for this service, but it paid off substantially in increased sales and wider acceptance of the products by dealers. No stock was tied up after the holiday season, either, as the wraps were easily removable so that the merchandise could then be returned to regular stock.

Combination units

Gift packaging has always offered a wonderful opportunity for making a combined unit sale and more firms are continually finding out the advantages of this merchandising principle. It is even being adopted today in the highest-priced luxury field.

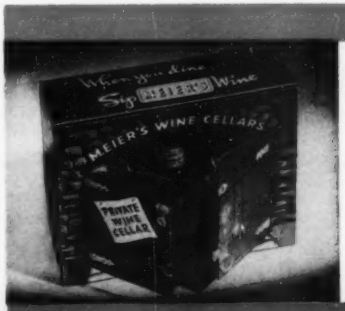
Announcements were made just last month of a packaging program instituted by Steuben Glass, Inc. Heretofore all of this company's fine handfashioned table glass was sold on the basis of prices quoted by the dozen. To encourage sales of more popular units of twos, fours and sixes, the company has now packaged nine sets, offered in various combinations and designs, ranging in price from $55 for a cocktail shaker and two cocktail glasses to $166.50 for a combination of four goblets, four wine glasses and four champagne glasses.

The packages are exquisitely simple, strongly built set-up boxes with hinged lids and serve as storage chests in the home, similar to a silver chest. Each piece of glass is individually placed in a draw-string, gray flannel bag which harmonizes with the gray coated stock used as the box covering. The only identification is the printing of the words, "Steuben Glass," on the top and inside the box lids. Special compartments of set-up box construction are arranged to keep each piece of glass in its position.

The first of these units was introduced early this year. Customer response was exceptionally good, particularly for the smaller sets. Heretofore a price of $100 or $150 for a dozen glasses, the company felt, kept customers from buying gifts in smaller units of four or six glasses, because they thought their gift might look too small. Now a cocktail shaker and two glasses, for example, beautifully boxed together at $55, becomes an accepted gift unit—a smart cocktail service for two—and the shopper no longer feels that such a gift looks too skimpy.

The new method of packaging also gives better protection to the glass, the individual compartments and flannel bags making additional inner packaging unnecessary other than tissue around the bags to keep each piece from shifting.

The combination idea has also caught hold in many popular-price gift fields—the set boxes for cosmetics, for instance, being a hardy perennial. This year the shopper will see hundreds of other combination gift packages—little girl's panties, three to the box; men's shirt-tie-handkerchief sets; jams and jellies and foods of all kinds; tobacco products; tools; kitchen



27. WINE CELLAR CARTON promotes gift sales of Meier's 6½-oz. Midgets—a size originally planned for bars and for restaurant use.

utensils; wines and liquors, to suggest only a few.

Holland House Sales Co. has packaged a whole combination of its cocktail mixes, along with a 6½-oz. bottle of grenadine, a jar each of cocktail cherries and olives, a measuring jigger, hors d'oeuvre picks, six stirrers and recipe booklet—18 items in a handy chest called "Town and Country Bar." The mixes are thus conveniently ready for mixing with preferred brands of spirits. The unit is a handsome gift for a man any time of the year and is a useful item for a firm looking for something unusual to send good customers at Christmas time.

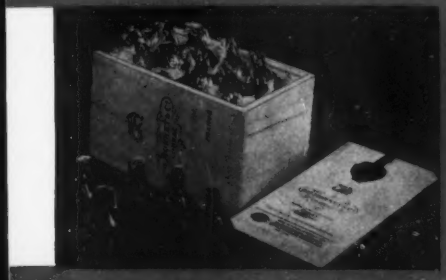
Store gift wraps

No article on gift packaging is complete without a word about department-store practices, because of the tremendous volume of decorative papers that are used for store gift wrappings. In this field, there is a steadily increasing use of privately designed papers for year-around as well as seasonal gift wraps and box coverings. Stores are keenly aware of the advantages afforded by the exclusive identity of such wrappings.* Many of these wraps for quality stores today do not even carry printing of the store name, the individuality of the registered design providing the entire identity and the basis for exclusive promotions. A notable example is the violet-patterned paper used by Bonwit Teller, which is now being printed with several background colors for different seasonal promotions.

These decorative wrappings are printed by every kind of process and may be as simple or as elaborate as

(*This article continued on page 180*)

*See "Tradenarked Papers," MODERN PACKAGING, June, 1949, p. 91.



28. ONE-OUNCE MINIATURES of Monnet Anniversaire Cognac are a clever merchandising idea. They are packed 24 to a small wooden case with a red seal on the outside.

EIGHT WAYS TO DRESS UP WINES AND LIQUORS

29. THE SINGLE-BOTTLE GIFT PACKAGE may be a carton, a sleeve or a colorful wrapping—either for seasonal use or for year-around selling. Illustrated here are several successful examples of various different types. The Mount Vernon and P.M. packages are printed cellophane bags.

The culmination of years of research and more than five years' intensive development, a radically new kind of collapsible tube—wound from a preprinted sheet of laminated material, rather than extruded from a blank of soft metal—is today a commercial actuality.

It results from the faith of one company which believed that metal in foil form—i.e., aluminum foil—could be successfully formed by convolute winding into a tube on which an integral shoulder and threaded neck and conventional crimp end could be formed. The answer was found in sandwiching aluminum foil between two plies of plastic film—the films providing both the interior surface and the tough, transparent outer surface on which printing is done on the reverse side.

The scope of the development is indicated by the fact that more than a dozen packaging converters and suppliers joined forces with this organization to perfect the printing and laminating processes and several of the largest collapsible-tube users lent their offices from the completion and testing of the early commercial product to the present, improved tubes which are now being used.

Today printing and laminating presses are turning out rolls of plastic film-aluminum foil materials and an automatic tube-production line is forming and capping tubes, ready for filling in the conventional manner. Approximately 3,000,000 tubes have been produced.

DOUBLE-WALL construction of convolute-wound body is illustrated by peeling back top film-foil-film layer. Above it is a capless tube that has been stamped on many times in abuse test; there is no break in body and the printing is unmarred.

First users

Among the first customers for the new tubes are the Bristol-Myers Co. (which has used nearly a million for Benex and Ingram shaving creams) and the Barbasol Co. (for Barbasol brushless shaving cream). If you are a user of any of these products, you may have noticed within the last year or so that the tube seemed lighter, thinner, more brightly printed and had a characteristic swirl pattern in the formation of its shoulder. Otherwise, you might not have noticed anything different about it. To the trained eye, the unusual clarity and brilliancy of the printing on these new tubes is another identifying feature.

Beginning with the roll of laminated material, the tubes are made by a machine that automatically cuts this web into blanks, winds the blanks into cylindrical form, seals double layers of the wound material together by heat and pressure and then, by twisting and compressing one end of the tube, forms the shoulder and neck of the tube ready for the final capping operation.

A bottom closure is effected by the conventional crimping operation after filling.

Although at present the tube may seem to be competing with conventional extruded tubes in the familiar fields of shaving creams and dentifrices, the indications are that it will not in the long run generally replace extruded tubes, but rather—because it surmounts some of the inherent limitations of the extruded tube—extend the use of this kind of package into some wholly new fields for which collapsible tubes had never before been considered.

Advantages

These are some of the far-reaching advantages, the search for which motivated the new development:

1. *Sizes*—both length and diameter—can be produced far beyond the mechanical limits of extrusion or drawing. This opens an opportunity for many kinds of viscous products customarily packed in quantities—both very large and very small—unsuitable for the collapsible tube.

2. *Materials* can be picked from a wide range to meet any product requirement; they need not be restricted to the soft metals suitable for extrusion. Tubes can be made with an inner ply of any suitable thermoplastic film or coating. Among the thermoplastics understood to be suitable are vinyl, polyethylene, Pliofilm, saran and neoprene rubber. Coated cellophane, it is also reported, can be used.

3. *Fine printing* is possible and, when applied in reverse to the under side of the outer ply, it is protected from handling and wear—a bugaboo of many tubed products previously. Despite recent advances in enamel decorating of extruded metal tubes,

LEADING BRANDS INTRODUCE A FOIL-FILM TUBE, CONVOLUTE-WOUND

FROM A PRE-PRINTED WEB, WHICH OFFERS NEW POSSIBILITIES FOR PACKAGERS

collapsible tube

THREE BRANDS currently using the laminated foil tube. Bristol-Myers alone has used nearly a million. Note pleated shoulder, which is identifying characteristic of new tube, and the fine printing, done on the reverse side of vinyl surface film. Tube, shoulder and threaded neck are integral—all are formed from a single laminated sheet.

that process obviously cannot achieve the effect of multicolor gravure printing economically applied to the film in web form. Effects comparable to the finest cellophane printing can now be obtained on these new laminated collapsible tubes.

4. *Structure* can be made stronger, it is claimed, than is possible in any thin-walled extruded tube. Convolute winding of the three-ply material to two or three thickness—continuously sealed from film to foil to film—provides an integral wall with no weak points, impervious to flaking, cracking or pinholing. Materials can be chosen to provide almost any required bursting or tearing strength. Vinyl, Pliofilm and saran are exceptionally strong even in thin gauges.

5. *Potential economies* appear to be sizable and will be fully realized when equipment for forming the tubes can be installed and operated by the packager in his own plant. The company is making no statement about cost, but in the field it is reported that even at today's pilot-plant stage, cost is competitive.

Extensive research

Before going into specific details about the tube and the tube-making machine, some background about the monumental research—between 20 and 30 patents both here and abroad have been involved—is in order. Back in 1943 when the project began, the basic concept was to explore the possibility of using foil and other packaging materials such as paper and plastic films to make collapsible tubes for possible wartime application and to simplify the actual process of tube manufacturing and decorating by designing equipment that would turn out convolute-wound tubes from preprinted roll stock.

Originally it was believed that printed aluminum foil with coatings of thermoplastic materials would be the solution. At the time, however, the printing of foil itself was fairly new and there were problems of registrations, ink formulas, etc. The coatings on the foil were difficult to handle; there was the problem of adhesion to the foil, uniformity of coating thickness, breakdown of the coating during the tube making and filling. In short, at the end of several years' work along these lines the convolute-wound tube produced was not essentially a forward step from either the standpoint of package appearance or from a protective standpoint.

A new approach to the whole problem—the idea of printing on film and

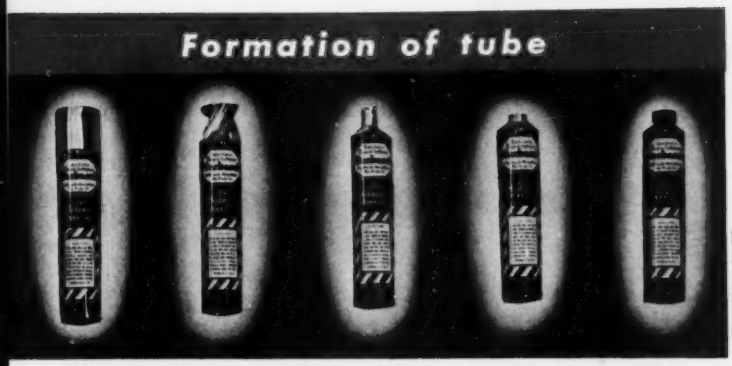


PHOTO COURTESY ATF, INC.

PROGRESSIVE STEPS in twisting body to form shoulder: compressing and forming neck; threading neck and applying threaded closure. All but the final capping operation is done automatically in the finishing unit of tube-making machine where heat-sealed tubes are mounted on a series of upright mandrels that rotate past the finishing stations.

laminating films and foil—was offered and this called for the coordination of efforts not only of the plastic and foil suppliers, but also converters and laminators.

All the techniques of printing on films had to be studied in view of the fact that the printing, to be most effective and brilliant and to be completely protected from damaging surface contacts, had to be done on the under side of the film, which would come in contact with the laminating adhesives. These, in turn, would differ according to the type of film. Details of how these problems were solved remain a secret but, needless to say, as fast as one problem was solved, another came up.

Thus, it was not until recently that the new tubes were made available on a commercial basis and even at the present time the range of tube sizes being offered is limited to the most popular dimensions.

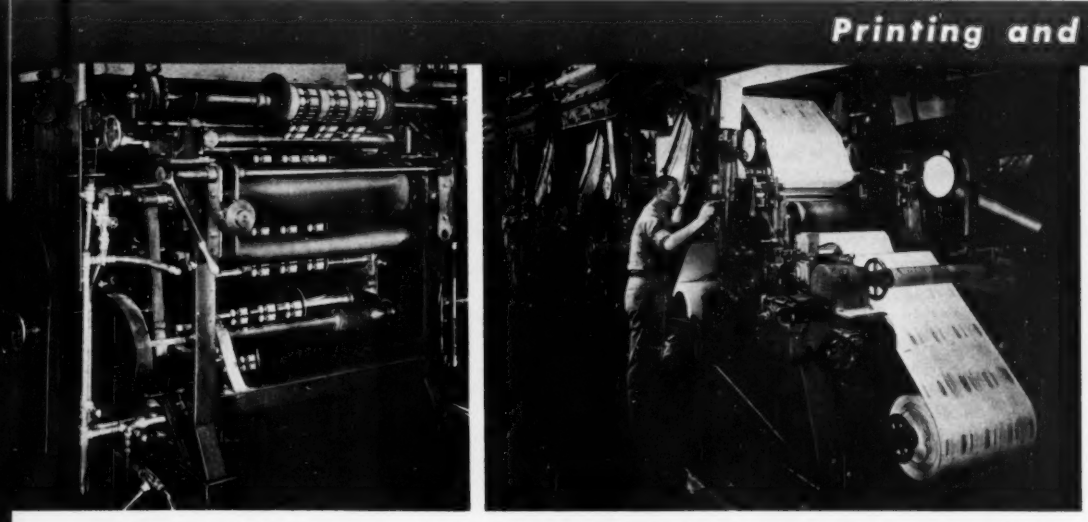
Equipment and materials

The present tube-making equipment can manufacture tubes as small as $^{7}/_{8}$ in. in diameter and $4^{9}/_{16}$ in. high, to tubes of $1^{1}/_{2}$ in. diameter and $7^{1}/_{16}$ in. high. Machines can be equipped, however, to make any conceivable size.

Obviously, there is no limitation as to the proportions of an individual tube's diameter and height from the construction standpoint.

The combination of materials—foils and films—is limited only by the fact that the two films must be heat sealable for the tube-making operation. So long as they are compatible in this respect, the two film plies may be of different materials. On the Ingram and Barbasol tubes, however, both plies are of vinyl film.

The choice of film for the outer ply rests upon two counterbalancing factors: appearance and protection. The degree of the film's transparency is important from the printing standpoint, as it controls the effective use of white, high-gloss or transparent inks to make an eye-appealing design. On the other hand, where and how the tube will be used from the handling stand-



PRINTING FILM which forms the outer surface of the complete tube is done on modern, high-speed rotogravure presses as the first step in processing the laminated roll stock.

COMBINING FILM with aluminum foil is done next on this laminating machine in the same converter's plant. The bonding agents used are nitrocellulose, rubber or vinyl resin types depending upon the type of thermoplastic films that are being laminated to the foil.

point is an equally important consideration—whether the user will be handling the tube when his hands are wet and soapy, as in the case of the shaving creams, or whether they will be greasy, powdery, etc.

Protection of the product is the function of the inner ply, hence its selection is based first and foremost upon the characteristics of the product's ingredients. It is here that the wide range of protective qualities of the films opens new vistas for the use of tubes as a package. Corrosive acid products, for example, may dictate the use of certain films; alkaline products may require another kind. Polyethylene, of course, would be useful for most corrosive products.

Although, obviously, the gauges of the foil and films depend upon the size of the tube and the characteristics of the product, for small-diameter tubes (1 in. and under) 0.0015-in. foil is generally used; for tubes of 1- to $1^1/_4$-in. diameter, 0.0020-in. foil; for $1^1/_4$- to 2-in. and over, 0.0025-in. thickness. The outer ply is generally of 1-mil thickness, while the inner ply is in most instances thinner—as low as 0.4 mil for tensilized Pliofilm, and 0.5 mil for saran.

The bonding agents are of the nitrocellulose or rubber types or vinyl resins, depending upon the particular type of film used in the lamination.

A major problem encountered in developing the tubes was that some products attacked the adhesive where it was exposed along the seam of the tube body. Today, it is reported, this has been overcome by crimping back the edge of the material so that during the winding operation the exposed edge is folded in between the two layers and thus completely protected.

The only criticism of the tubes offered by users at the present time concerns the softness of the shoulder section and a weakness that seems due to the twisting method of the shoulder formation. In most instances, however, they say, the use of slightly heavier-gauge foil has prevented actual tube failure at this point, although distortion after the tube has been filled sometimes occurs during the tube-cartoning operations.

Machine operation

The equipment now producing the tubes at the pilot plant is the prototype for lighter, more-streamlined, less-complex machines being planned. The basic mechanical steps will be the same as they are on this machine, which operates as two units—one to form the tube body and the other to form and finish the shoulder and neck.

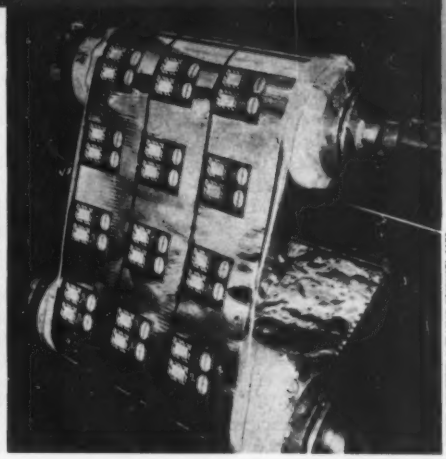
Features of the equipment's operation are shown in the accompanying illustrations.

The infeed section of the unit, located at right angles to the main section of the body-forming stations, consists of a series of rollers around which the web is threaded and which carry it to the indexing mechanism. Before the body blank is sheared from the web, circular knives trim the edges to predetermined dimensions. An electric-eye control regulates the cut-off knife for the required length of the tube blank.

The body blanks are loosely wrapped around mandrels in a series of intricately timed operations wherein the mandrel is first positioned with the blank in preparation for the mechanical "feeler" fingers that gently but firmly guide the blank around the mandrel and turn back the side-seam edge as described above. The blank laps the mandrel slightly more than two times, so that the wall of the completed tube is a double thickness of the lamination—four layers of film, two layers of foil, all sealed together by heat and pressure.

The sealing operation, using a blast of hot air for both heat and pressure, is most unusual. The tube body is held in a cylindrical cavity and the air jet is blown through its open

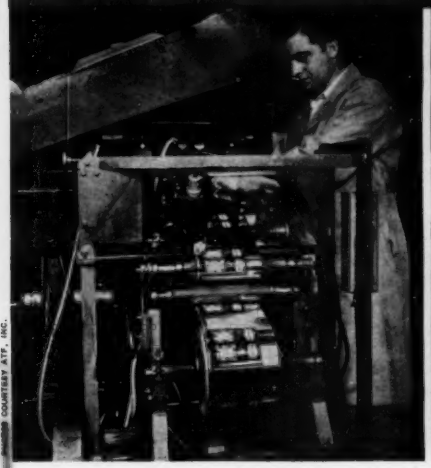
lamination of sheet



PHOTOS COURTESY SHELLMAR PRODUCTS CORP.

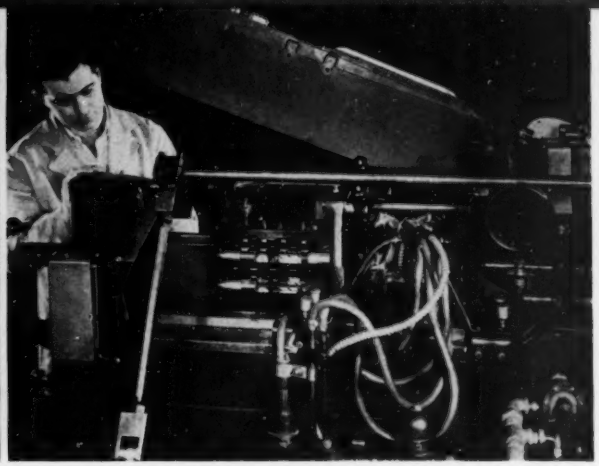
LAMINATING operation close-up, showing p.inted film (right) joining foil (left) at the point of combining on machine. Thickness of film and foil plies depends upon tube size, characteristics of the product, handling hazards and other user requirements.

REWINDING operation at end of laminating machine, showing continuous web of film-foil-film material leaving machine. Wide web will also be slit into three individual tube webs finally.



PHOTOS COURTESY ATF, INC.

IN-FEED SECTION of tube-making machine, showing workman threading web through slitting mechanism. Electric eye controls blank cut-off. Circular knives (one below operator's hand) trim sides of the web to correct tube lengths.



BLANKS ARE WOUND twice around mandrels preceding a unique hot-air-blast heat-sealing operation which takes place inside a heated cavity which slides over the mandrels. The heat-sealing cavity is hidden from view in the central part of the machine behind the cluster of coils and air hose in the center right foreground.

center. This expands the tube body against the walls of the cavity under pressure and at the same time the temperature of the air heats and activates the thermoplastic films.

After the tube body cylinder is solidly sealed, the cavity is withdrawn and the tube is picked up by a jaw-like device which deposits it onto a belt conveyor leading to the intake of the second unit of the machine. At the top of this ascending belt, the cylinder is delivered onto a chute that leads into the finishing unit, dropping it in position on one of a series of upright mandrels on a rotating turret. As each cylinder rotates on its mandrel a different step in the finishing process is accomplished by means of knurling rollers and split dies located in the head of the tube-finishing unit.

First, the walls at the end of the body are twisted, pleated and compressed into the identifying swirl shape of the shoulder. At the next stations the neck is rolled down; then at the compressing stations the material of the neck is compressed and the thread formed. The final stations debur the orifice. Finished tubes are picked off the mandrels automatically and dropped into a chute leading to a separate unit where closures are applied to the tubes and the finished containers are inspected before boxing them for shipment.

Economics

When the new tubes are supplied to the user in finished and capped form ready for filling, their cost is said to be comparable to that of conventional extruded tubes. However, because of their lighter weight, in most instances, shipping charges both to the packager and through distribution channels are slightly less.

The greatest potential economy is, obviously, to the large user who may be able, eventually to install the tube-making equipment in his own plant. Actual tube costs, it seems evident, will then be considerably less under this manufacturing process which simplifies the whole tube-making procedure.

Even now the machine needs only one operator; shipping, boxing (a big item in cost of finished tubes at present) and storage costs can be reduced manyfold.

Tube potentialities

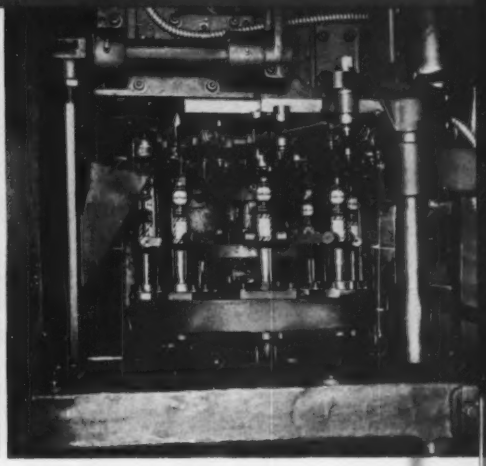
The new tubes have aroused great interest in the food industry, where, it is reported, they are being widely tested for such products as catsup, prepared mustard, mayonnaise, soft cheese spreads, peanut butter, jellies, frostings, fish pastes and food concentrates. Similarly, in the chemical, pharmaceutical and cosmetic fields, tests are being made with creams, pastes, jellies and even liquids which heretofore could not be packaged in tubes because of the products' incompatibility with conventional tube materials and coatings.

Among the more intriguing possibilities are the use of the tubes for lubricants and paints in larger sizes; as a small-sized package for household products such a metal, leather and wood waxes and polishes—items which so often dry out and harden before they can be consumed when in larger-sized packages.

While it is too early to see exactly where the new tubes will fit into the whole picture of collapsible-tube usage, the industry as a whole has been aware of the increasing number of products now going into this type of package. It has been especially noticeable in the instance of cosmetics and toiletries where a number of deodorants, suntan preparations and cream shampoos are now tubed. Consumer acceptance of these products in tubes is indicated to a degree by the fact that a recent marketing survey showed that the four most popular

—from web to finished tube

SEALED CYLINDERS are picked up by jaws (left) and lifted to conveyor. At top of the inclined belt the cylinders are delivered onto a short chute so that they slide into position on a mandrel for the finishing operations. Tube production is entirely mechanized in the pilot plant supplying the current tube users.



FINISHING TURRET unit with upright mandrels revolves clockwise while pleating of shoulder, roll-down, compressing and neck threading are accomplished by knurling rollers and split dies. The finished tubes are capped separately.

cream shampoos were packaged in collapsible tubes. Although food products in tubes are much less common here in this country than abroad —the Scandinavian countries are, for example, even packaging sterilized fresh cream in tubes—the trend toward smaller-sized packages may, in the next few years, bring about a change toward the increased use of tubes for foods.

It would be interesting to see what would happen if a new company which planned to market viscous foods were to study the feasibility of setting up its packaging operation with tubes, not only from the packaging-cost standpoint, but from the marketing standpoint when the price of a 4- or 6-oz. tube might be a determining factor in relation to package size and turnover.

Aside from the use potentialities of the convolute-wound, laminated-foil tubes, their development is an eventful landmark in the record of collapsible-tube manufacturing techniques and a far cry from the simple hand-operated screw press used by a Frenchman, M. Richard, Aine (Sr.), back in the 1850s to make the first metal collapsible tubes of tin. Since then there have been many improvements in the equipment for extruding tubes from soft metal slugs. The first hydraulic press equipment, developed about 1870, speeded up the production of extruded tubes to approximately 25 gross a day. Ten years later the first swinging-arm extrusion press was made by John Rausch, which was followed five years afterward by a power crank press that put tube making on a mechanized basis. Today's modern presses, evolved from a toggle-type press brought out first in 1915, are high-speed equipment capable of producing over 100 gross tubes in an 8-hr. day.

While tin-coated lead tubes were introduced as early as 1902 (a year after decorated tubes were first made by a machine process using rubber rollers and plates), the great technical advances in developing other protective coatings and lacquers has come within the last 25 years. Furthermore the extensive commercial use of aluminum tubes in the United States has really been only since World War II, although they were made abroad during the first World War and were available domestically as early as 1920. In light of this, it is interesting that 44.5% of all the collapsible tubes produced (2,742,00 gross) in the first half of 1949 were of extruded aluminum and that 34.5% of the total tube shipments in 1948 were aluminum tubes, according to the latest available statistics from the U. S. Dept. of Commerce that were released this year.

The new tube, because of the different techniques and materials involved, cannot be compared with the so-called plastic tube, made of acetate with wax coatings, which were used briefly by a few companies in 1942 during the war shortages.

CREDITS: *Development and production of laminated-foil tubes and tube-making machine, Collapsible Tube Div., ATF, Inc., and its affiliate, Frederick Hart & Co., Inc., Poughkeepsie, N. Y. Machine engineering, American Machine & Foundry Co., Buffalo, N. Y. Printing and lamination for Barbasol, Ingram and Benex tubes, Shellmar Products Corp., Mt. Vernon, Ohio. Aluminum foil, Aluminum Co. of America, Pittsburgh, Pa.; Cochran Foil Co., Louisville, Ky., and Reynolds Metals Co., Richmond, Va. Vinyls, "Vinylite," Bakelite Corp., New York. Other companies cooperating in development: Dobeckmun Co., Cleveland, Ohio.; Milprint, Inc., Milwaukee, Wis.; Dow Chemical Co., Midland, Mich. (saran); The Goodyear Tire & Rubber Co., Akron, Ohio (Pliofilm), and E. I. du Pont de Nemours & Co., Inc., Wilmington, Del. (cellophane, polyethylene and neoprene coatings).*

Study in standardization

BUTLER BROS. LICKS A TYPICAL PROBLEM BY RESTRICTING SOURCES

TO FIVE SIZES OF UNIFORMLY LABELED BOXES FOR ENTIRE LINE OF LINGERIE

FIVE NEW BOXES, of space-saving folding construction, replace more than 30 miscellaneous set-up boxes formerly used for the same lingerie items. New design also standardizes on "Ruth Barry" brand name.

The purchase of competitive merchandise from multiple sources of supply, to be marketed under a single brand name, gives large distributors more than their share of packaging headaches. How to insure that such items will be uniformly and properly packaged at an economical cost, and still with the best presentation of a "quality" message, is a perpetual problem.

One answer to the problem, applicable to almost any line, can be found in what Butler Bros., national wholesale firm located in Chicago, has done with its line of lingerie.

In an attempt to achieve uniformity in appearance, to establish brand-name identity for lingerie items and to eliminate frequent, costly repacking operations necessitated by wrong and inadequately packaged goods, Butler Bros. has developed a program of package standardization that makes effective use of five sizes of well-designed boxes where formerly more than 30 different sizes and shapes of nondescript containers were employed.

An analysis of the former packaging, as received from the various sources of the merchandise, revealed that in most instances boxes were not properly designed for the contents and that even for the same merchandise purchased from two or more sources, dimensions of the boxes differed.

During and immediately following the war it was necessary to accept any available packaging from most sources to obtain delivery of the goods. It is understandable, therefore, in receiving goods in this manner from several different sources, that lack of uniformity should prevail.

With the easing of conditions, an effort was made to establish some semblance of uniformity to make available a series of printed box-cover wraps which identified the brand name and had a distinctive design that would immediately identify the box and contents to the customer as Butler Bros. merchandise. When the wrappers were used by the sources, the resulting boxes did present a uniform appearance. However, in the interest of economy, the wrappers were made of a liberal trim allowance to serve for more than one size of box. This again resulted in many variations of box sizes being received from the sources and, with few exceptions, none of the boxes was designed in the most economical dimensions for the contents.

In the packaging rooms of the sources the goods looked nicely arranged in the boxes and if they could have maintained this appearance in transit through to the stores, everything would have been fine. However, the goods packed in this manner usually shifted considerably in transit and presented an unattractive, wrinkled appearance upon arrival at the stores.

Furthermore, the fact that several brand names were involved necessitated carrying an extensive inventory of the printed wrappers. Maintaining these inventories was difficult. The sources had no effective set-up for coordinating their use. Thus they were often mixed, or used in lieu of

one another if the inventory of any one wrap had been depleted.

An attempt at supplying the sources with specifications for box sizes and wrappers was moderately successful, but the source often had no plant facilities for insuring adherence of their box makers to these details. This entailed constant policing, at considerable cost. Therefore, it was apparent that the success of any program of this nature would be dependent upon the elimination of as much of the detail as possible.

The approach to this simplification, reducing the detail for the sources to the absolute minimum, seemed to be in the design of a series of boxes which would be conveniently available to all. In this manner, the only instruction necessary to be given to the plant for packing of the merchandise would be to specify which box to use.

With this in mind, Butler Bros. Packaging & Research Department, under C. Koehler, developed a series of five box sizes which now satisfy the requirements for adequate packing of about 90% of the items in the lingerie line. This program was also aided by the management's decision to reduce the brand structure of the line to a single brand name, which greatly simplified the inventory problem.

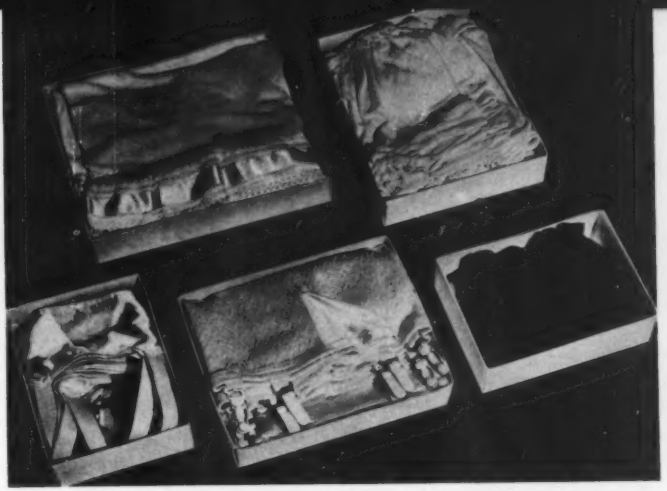
To surmount the storage problem for the sources, the boxes were designed in the folding style. They are made and stocked in a convenient location central to most of the sources and are easily shipped to them in substantial quantities neatly packed in cartons in the knocked-down flat condition requiring the use of a minimum of storage space.

This system insures that the sources will maintain a sufficient supply on hand of the proper sizes, whereas with the set-up style of box with the printed brand wrapper, the storage of large quantities was a definite problem and spot deliveries for rush orders were difficult for them to obtain from the box makers. This situation often resulted in substitution of factory or "neutral" packaging, frequently in wrong box sizes.

These off-sized packages often were the cause of the arrival of the goods in unattractive, wrinkled condition and, if the box happened to be much oversize, it invited the source to pack more goods in it than was called for in the specification.

This situation made necessary the repacking of goods at considerable delay and added expense in the branch warehouses prior to making reship-

(*This article continued on page 179*)

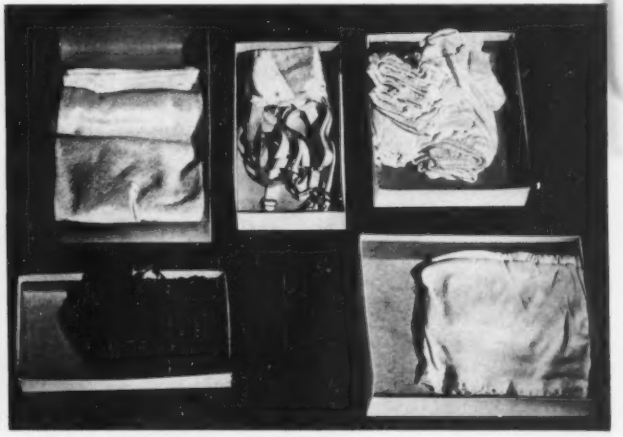


WITH NEW BOXES, manufacturer is given specifications of box number and quantity of items to be packed in it. The snugly packed new boxes give far better protection to the contents than those formerly used.

Old boxes were as haphazard in fit as in design

PHOTOS COURTESY BUTLER BROS.

FIVE EXAMPLES from the old line illustrate complete lack of uniformity that existed in design, color, brand name, end labeling.



POOR ENGINEERING of package size in relation to content dimensions wasted space and resulted in shifting of contents in shipment so that the lingerie reached stores wrinkled and unattractive, as shown here.

Packaging's Hall of Fame

SEVENTEENTH OF A SERIES

McCORMICK
SPICES and EXTRACTS

For nearly 4,000 years, man has enhanced the gastronomical appeal of his diet by seasoning his foods with spices. His thrilling and often bloody quest for these seeds, berries, herbs, roots and barks is recorded throughout history, back as far as the hieroglyphics on the walls of ancient Egyptian tombs, in the ransom of Rome, in the Crusades, in the fabulous adventures of Marco Polo and Columbus' discovery of America, to the chartering of the great East India Company and the saga of Yankee Clipper ships.

Indications are that spices—so valuable in early times that they were often used as currency—were among the first packaged products. But it is a far cry from Hernando Cortez' first curious examination of vanilla beans in Mexico in 1521 (depicted on our cover) to the modern spice and extract packages typified by McCormick & Co.'s famous products.

Over the four and a half centuries since man's love of spices lured explorers into the discovery of America, the spice-and-extract business has been a curiously disconnected industry, made up of great numbers of small processors who were usually limited in distribution.

Although McCormick & Co., Inc., modestly claims only 10% of the total volume of the spice-and-extract industry, it is the biggest single producer in the business and the only one having full national distribution. Its modern package design, adopted in 1938, has often been referred to as a classic example of change to meet modern merchandising conditions and its production, packaging and merchandising methods are among the most advanced in the entire packaging field.

Thus McCormick qualifies for Packaging's Hall of Fame as the modern leader of one of the world's oldest packaging industries.

The modern story of packaged spices and extracts is only part of the 61-year history of McCormick & Co., but because these are the most famous and most important of the company's 800-odd products, they have been selected for our cover illustration in association with the scene of Cortez tasting the vanilla beans—which, incidentally, is taken from one of a series or murals depicting "The Story of Spice," painted by Edwin Tunis on the walls of the Little Theater at McCormick & Co.'s headquarters in Baltimore.

McCormick teas, condiments and dressings likewise appear on grocery shelves across the nation in packages bearing the familiar "Mc" logotype, while the company's name and reputation stand behind its two lines of insecticides, Bee Brand and Red Arrow; its Reliable brand of drug specialties and its Banquet brand of food flavorings in institutional-sized packages. In the past three years the McCormick name has also been linked on the West Coast with that of another famous spice house, A. Schilling & Co., a division of McCormick since 1947.

Present-day executives are convinced that basic packaging policies formulated more than a half century ago have contributed greatly to the company's success. The cornerstone of these policies is the fundamental belief in the company that, as a food processor, McCormick has an obligation above and beyond any legal responsibility to give the consumer the best quality product possible in the best package possible at the best and fairest price possible. Thus, in McCormick packages:

Company name and trademark have been consistently featured (even though two basically different package designs have been equally famous).

Product identification has always been emphasized (McCormick introduced a carton for whole pepper with a transparent window 42 years ago—long before cellophane or acetate had been invented).

Constant improvement of closures, container shapes and materials has been made for the user's convenience (the company was one of the first to adopt sifter tops on its spice and seasoning tins and cruets; to introduce an easy-to-grip bottle).

Cleanliness has been a packaging "must" just as quality has been a product "must" (for 12 years the final packaging operation at the McCormick plant has been a trip through gas fumigation chambers).

The McCormick history is sharply divided into two eras: the period from 1889 to 1932 when the company was ruled with an iron hand by its founder, Willoughby McCormick—a fanatic on quality and brand-name identity, but sadly lacking an artistic eye for package design—and the present-day period from 1932 on, when a younger generation introduced a thoroughly modern concept of business management and merchandising and, with a revolutionary package design, brought the company out of a slump and up to its present dominant position.

The beginnings

It was Willoughby McCormick who foresaw at the beginning of the 20th century that the future of his spice- and tea-importing business depended upon winning the favor of the ultimate consumer—a completely radical idea at the time.

NOMINATED FOR PACKAGING'S HALL OF FAME BECAUSE:

- **McCormick is the packaging leader of a 400-year-old American industry.**
- **It mastered the art of handling diverse small packages with maximum identity and consumer convenience.**
- **Its famous "Mc" logotype not only revived the company, but launched a new school of package design.**
- **Its packaging organization and operation is a model for all industry.**

By offering the housewife her spices and flavorings in individual packages so that she could maintain a complete selection on her kitchen shelves, he laid the foundation for what is now claimed to be "the world's largest spice and extract house."

A disaster taught Willoughby McCormick his first lesson in packaging—the value of brand identification. From the time he started his importing and spice-milling business in 1889 until the great Baltimore fire of 1904, approximately 98% of the company's spice and extract business was sold under the private labels of wholesale grocers. The remaining 2% was marketed under McCormick's own labels,

LATEST INNOVATION is the introduction of four-color-process illustrations on flavoring cartons, lending modern appetite appeal without impairing the famous logotype. Sales of root-beer concentrate in the new package immediately jumped one third over the previous non-illustrated package which is shown at the right. COLOR PLATES COURTESY CONTAINER CORP. OF AMERICA.

of which Bee Brand was the best known.

The McCormick plant was destroyed by the big fire and, with his back to the wall, McCormick had to rely upon the loyalty of his customers to stand by him until the business could be re-established. But, while McCormick & Co. was out of production, its customers took their business elsewhere and Willoughby then realized that all the good will he should have created for his own company had accrued to his private-brand customers.

After the business got under way again in its new building, McCormick set about correcting this error. He vowed that he would establish and promote his own brands, with Bee Brand as his top quality leader.

The company's records indicate that the first grant to use the Bee Brand trademark was issued in August, 1890. Several years before Willoughby McCormick died in 1932 he dictated a brief memorandum giving details of why and how this famous trademark came to be:

"We wanted to suggest to the consumer the careful search for fine flavors which has always been carried on in the background of our business. The study of bee culture has always been interesting to me. One of the cleanest and most valuable of insects, the bee is discriminating; he selects the best for his production. He is courageous—and remarkably industrious.

"Although the company was very small, we had begun to entertain visions of developing a vast industry where the wheels would hum as do the bees in a hive. So it seemed to us that the bee would serve as an excellent trademark."

A simple picture of a bee could not be used alone for legal reasons, so the actual symbol designed consisted of a bee with wings outstretched inside a circle which was a belt, complete with buckle and old-fashioned watch fob. The words "registered trademark" were printed in reverse in this belt band. Although not a part of the actual trademark as registered, many times little twin figures of a Scottish boy and girl dancing the Highland Fling appeared on each side of the bee insignia as additional decoration.

Although none of the original packages are in existence today, two of the company's early pieces of sales literature show some of the packages as they appeared in the display cases that were offered to dealers—a clue that even in 1905 McCormick was aware of the need to provide dealer merchandising aids. The first cabinet, "made of hard wood, enameled in white, will wash like ivory," contained three tiers of lemon- and vanilla-extract cartons. The Bee Brand trademark is faintly discernible on the front of the cartons in two of the tiers and is clearly painted on the hinged glass door at the front.

The earliest extant package is the 1908 window carton, illustrated herewith, which has the fascinating possibility of being the first transparent-window package ever used anywhere. Willoughby McCormick insisted on visibility for his black peppercorns. The nearest thing that 1908 could provide to today's transparent, flexible window material was sheet mica. The

EARLIEST window carton known is this McCormick black-pepper package which was using transparent sheet mica in 1908.

EVOLUTION

REVOLUTION

DARK AGE of McCormick package design is represented by this group. Early success came despite cluttered, indecisive label and unfortunate trademark which some thought looked more like a fly than a bee. Cleaner label appeared in 1932, but there was still indecision as to whether "Bee Brand" or "McCormick" should be featured.

CLEAN BREAK with the past came in 1938 with bold "Mc" trademark which made these packages two-time All-America prize winners. One of today's leading package designers established early fame with these distinctive labels.

carton had a brief success—but then a flood of returns began coming back from dealers. The adhesive holding the window soon dried out and lost its grip and storekeepers were busy sweeping up spilled pepper kernels from their floors. So, like many a pioneer idea, this one had to be put aside for another 20 years.

Ground pepper and spices were packed in small paperboard cartons until about 1911 when the company was able to secure lithographed tin canisters with small friction-type plug closures.

Shortly before World War I the old-style, topheavy, panel-type bottles for vanilla extract and other flavorings were discarded and a new private-mold bottle, with the McCormick name molded on one side, similar in appearance to pharmacy-style cough-syrup bottles, was adopted. At the same time, the cork stopper was eliminated in favor of a metal screw-on cap.

The bewildering switches in label design of Bee Brand packages from 1920 to 1932 reflect Willoughby McCormick's attempts to keep up with the rapid changes in food merchandising which transformed Amreica's buying habits during those years. The sales staff would argue for hours that the Bee Brand labels were out of date, but Willoughby, with equal vehemence, insisted that what the customer remembered most was the trademark and the color of the package. But the packages show that he was uncertain in his own mind.

The first real improvement came in 1928 with the introduction of the diagonal ribbon band across the face of the front panel and with the change from a gold-and-blue color scheme to red and blue. But, depending upon Willoughby's whims, the reverse lettering in this diagonal band was sometimes the brand name, sometimes the company name.

McCormick's can suppliers knew that he would be the first to try a new type of closure if he believed it would aid the consumer in using the package.

Thus there is a record of frequent changes in the style of pivotal sift-tops. Many of them were tried first on what was then the best seller in the whole Bee Brand line—not spice, but insect powder. A sifter-top can introduced in 1921 for the insect powder was, within six or seven months, adopted for the spices.

New management, new era

At the depth of the depression, in 1932, Willoughby McCormick died. His nephew, Charles P. McCormick, became president of McCormick & Co., which like many other companies in 1932, was in financial straits. The young McCormick had been one of those on the sales force who had argued with "the old man" for years about what is a selling package and sketched many new designs.

Furthermore, he had a complete theory on how a business should be managed, which he promptly proceeded to put into practice. He set out to rebuild the company's reputation and security with the cooperation of all the employees under his new "Multiple Management" plan of action, which since has become famous.

Because packaging was one of the first subjects to receive full attention

BOTTLES for extracts, shown here with progressively improved labels from 1924 to 1950, reveal early consideration for consumer convenience, with wide bases, finger-grip indentations.

CLOSURE CONVENIENCE has been constant concern of McCormick Co. Picture shows various closure openings for spice cans, ranging from the first "spoon or sift" can (upper left) to the side closure (bottom left) which is just now coming out.

REPRESENTATIVE GROUP of current packages shows package forms and label treatments as varied as the products, but—regardless of colors or surrounding elements—the "Mc" logotype identifies each instantly.

in this new plan, it should be explained briefly. "Multiple Management" concept involves the establishment of four "boards of directors." The first is the senior board of directors —stockholder-elected annually. The junior board is composed of company executives. Third is a factory board, composed of plant executives and supervisors, and fourth is a sales board, consisting of representatives from the field sales staff. The primary purpose of these boards is to produce ideas through discussion and to serve as training "schools" from which future executives are chosen. Until recently there was a fifth board made up of women—some from within the organization, some from outside—known as the consumer board; other better checks have since been established through its advertising and merchandising agencies.

Led by Charles McCormick with his own sales-wise interest in packaging, the junior, sales and consumer boards tackled the problem of modernizing the packages. Ideas developed during their individual sessions were sent to the other boards for consideration and criticism until a clear picture formed. As each idea was given unanimous clearance by the senior board it was put into effect.

Within six years many package changes had been made; some slight, others very noticeable. Two specific changes made in 1934 were the development of the special McCormick spoon-sift closure for the spice tins, permitting the user either to sift from the can or to insert a measuring spoon, and redesign of the extract and flavoring bottle.

This new bottle, with its "finger molds" along the sloping sides, was a radical departure from the conventional extract bottles of the day. Indeed its basic features were the forerunner of many bottle shapes designed for non-tip safety and handling ease. One of the company's selling pamphlets said, "For years all extracts were sold in a tall, thin bottle that was most inconvenient for the person who used it. This fact began to carry weight, the problem was studied and the result is seen in the new Bee Brand Extract Bottle which is so designed that it won't tip over, with finger holds on the side to prevent slipping through wet or greasy fingers and furnished with a metal cap that banishes troubles caused by corks."

Other changes developed by Multiple Management discussion were:

1. Identical front and back panels for many packages for convenient shelving in stores and in the home.
2. Product identification and use information stressed by (a) putting the item name on top, bottom and sides and (b) adding recipes on the back panels of certain packages.
3. Growing emphasis on the McCormick name and less on the Bee Brand name.

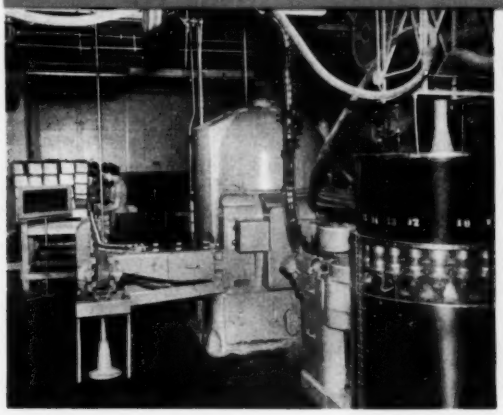
This last step paved the way for the revolutionary change in 1938–39 that introduced the "Mc" logotype.

The new trademark

It was about this time that a New York artist wrote to McCormick suggesting that if the company would send its line of packages, he would give his candid opinion of them. The company promptly forwarded the packages and he, in turn, wrote a letter so critical that at the time he was almost certain he would never hear from them again. His main point was that the package design led him to feel that the company was unable to decide whether it was "McCormick" or "Bee Brand"; that in any case, the label was cluttered and undistinctive, thereby usually fading into nonentity on the shelves. Furthermore, to him it was poor taste and poor psychology to tell the homemaker in one breath that "Bee Brand was a good flavoring for her cake" and in the other, as on the insecticide package, that "Bee Brand kills quickly."

His letter of criticism was answered immediately by Charles McCormick, who invited him to come to Baltimore

McCormick's packaging equipment reflects



BLACK PEPPER is filled on "Big Bertha," high-speed can-filling and closing line installed during the war for military purposes. Now it averages 300 pepper tins per minute. Dust-free filling unit is in the right foreground; the lid-crimping unit is in center background.

LIQUID FILLING is at the rate of 140 bottles per minute on this 20-head machine used for vanilla extract, together with other equipment in the line—cleaning, capping, labeling and cartoning—which is precisely synchronized with it. There are three lines for packaging extracts.

and talk about changes in the package. His criticism had checked almost perfectly with management thinking.

The company accepted the designer's basic recommendation that the packages in the McCormick spice line should have a strong "handle" or design feature that would go with the name and serve as a quick and easy-to-remember identification of its brand. Therefore, he created a dominant design out of the two initial letters in the name, "Mc," treated in strong, three-dimensional, poster-style lettering with the full name below it in smaller Gothic caps.

That was the birth of one of today's most famous trademarks—and it also helped launch the designer on a style for which he has since become noted. The resulting label bore out one of the designer's favorite theories: That package impact and recognition by the shopper are greatly enhanced when the trademark has a shape and character all its own that can be reproduced in any color or in black and white and still be readily identified. His McCormick packages were planned with clean white backgrounds, broken usually only by two bands of color encircling the package, one bearing the McCormick name below the "Mc," and the other band identifying the product. For most products the imprinted colors are dark blue and red, but in the complex McCormick line it has often been necessary to reverse the color for distinction between products, or to use entirely different colors (viz: red. green and gold were used on paprika, whereas for dry mustard, yellow was the basic color). This change in color adds interest to the mass displays.

Sometimes the band immediately under the "Mc'" is used for the product rather than the company name and it seems to make no difference; four out of five shoppers recognize today that the stylized "Mc" means McCormick & Co.

The new logotype was used for the first time in 1938 on a lithographed tin for tea bags. It immediately caught the eye of judges in MODERN PACKAGING's All-America Competition and was awarded top honors in its product group. Again in 1939, when the logotype was extended to the spices and extracts, the McCormick package was judged the All-America winner in that field.

Continuity between the new and old designs was retained for several years by keeping the re-drawn bee in a small red dot near the logotype as a decorative element. On the bottles and later on the cruets, the new logotype appeared on the cap top to tie in with the remainder of the packages.

Spices vary greatly in weight and bulk. There had always been the problem of package sizes: whether it was better to keep the net weight uniform for all spices and let the package sizes vary, or vice versa. The merchandising advantage of presenting packages in orderly mass display dictated the answer. Thus, although the cans for ground cloves, red pepper and black pepper are all the same size, the clove tin contains 1⅞ oz., the red pepper 1⅛ oz. and the black pepper 1⅛ oz.

The sales effect of the redesign was startling. By the middle of 1939 sales had mounted to 50% above the year previous. In the case of the tea packages, sales of the redesigned packages in 1939 were reported to have maintained a level 275% above that of the previous design.

These examples of improvement were considered so outstanding that they were included as two of the "100 Packaging Case Histories," a volume published by the Breskin Publishing Co. in 1939.

For eight years this design of the display face on McCormick's spices and flavorings packages remained virtually untouched, while refinement in the presentation of information on the side and back panels of the packages (cartons specifically) was continued as necessary.

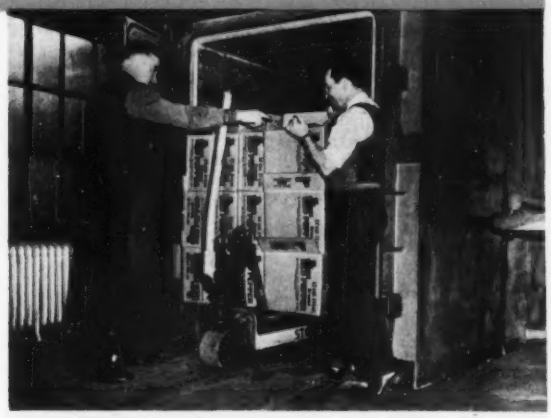
The spice package and extract label design as it is today—the McCormick name printed in reverse in a narrow band (usually red) between the "Mc" trademark and the wide blue band carrying the product name—was adopted in 1947. With this postwar modification, the transformation from Bee Brand to the McCormick brand was complete. The bee has flown from the face of the package; its only trace now is found on the tuck flap of the extract cartons and in the copy on a side panel where "the original Bee Brand" is printed.

Pictorial cartons

While the rest of the spice industry watched McCormick's steady rise, impelled by packaging, it was hardly prepared for the packaging *coup d'etat* executed by the company last year when its group of fancy flavorings appeared in new, colorful, pictorial cartons (see color plate, p. 87).

For each of 13 different McCormick fancy extracts and flavorings, a strikingly realistic illustration of the juicy fruit, berry or other taste thrill represented by the product was worked

high standards



SANITIZING of packaged spices by the unique "McCorizing" process uses two vacuum-gas chambers like the one illustrated here, located on the roof of the McCormick plant, each with a capacity of 300 shipping cartons. The chambers are flooded with ethylene oxide gas for 6½ hours to inhibit bacteria and mold.

out and applied to the upper right-hand corner of the carton without disturbing the other established design elements. Process printed in five colors, the vignettes gain mouth-watering appeal with a drop or two of juice represented as falling from the fruit, to suggest the extraction of flavor. Although some of the flavorings are synthetics, McCormick feels it has met legal requirements in such cases by printing the word "imitation" in the largest type used on the package.

The first pictorial carton was the root-beer concentrate, which was marketed at the beginning of last summer; sales in the new package increased 33⅓% over the previous summer.

Other items have also chalked up comparable sales gains in their new packages.

McCormick research indicates that four seconds is the maximum time that a spice or extract package has to catch a shopper's attention on the shelf of a self-service store. The pictorial cartons are designed not only to catch her eye, but to appeal to her sufficiently so that she will pick one up and examine it, thereby seeing the helpful recipe on the back panel. From there it is a short distance into her shopping cart.

With its pictorial packages (product sketches in color also are used on McCormick's dehydrated vegetable-flake tins), the company enters a new era in package design in which the emphasis shifts from brand to product identification. The step is considered logical by company executives now that the McCormick logotype and the family package design are firmly established.

The packaging operation

Last year McCormick spent approximately $1,000,000 for packaging materials for its "Mc" spices and another $500,000 for extract packaging materials. Its investment in packaging equipment can be judged from the fact that there are 11 lines for ground spices (another line is now being installed); three lines for packaging the whole spices; another three lines for extracts (one line with a 20-head filling unit turns out an average of more than 43,000 bottles of vanilla a day) and one line for filling and cartoning the food-color vials. In addition, there are other lines for teas, condiments and dressings.

By installing automatic equipment as fast as it has become available throughout the years, the company reports, it has in the past 10 years been able to double its productive capacity in the packaging departments.

Cleanliness in the processing and packaging departments is rigidly maintained by the company's quality-control and bacterial-control technicians.

The last of the packaging steps for tinned and cartoned spices is a 6½-hour stay in a sanitizing gas chamber. Two such chambers are located on the roof of the Baltimore building, each chamber holding an average of 300 shipping cartons. Once pallet loads of the packed cartons are inside the chambers, the doors are sealed shut and the air in the chambers is evacuated down to 1 in. of mercury. By manipulating controls from another room, the operator then releases 60 lbs. of ethylene oxide gas into the chamber, which completely penetrates through the packages without harming their contents.

Merchandising and promotion

Last year McCormick and Schilling extracts and spices accounted for over half of the company's total $28,000,000 sales.

Each division has its own sales staff who see food chain-store buyers, wholesale grocers and independent retail dealers on an average of once every two weeks. The frequency of these calls is important, for it explains how it has been possible for McCormick to distribute its redesigned packages so rapidly in every instance. The whole production and distribution timetable of the company is geared to this two-week timing of the turnover of goods.

In addition to responsibility for setting up displays—of which McCormick is a heavy user—the salesmen act as the company's main contact between the public and the home office, reporting back "grass roots" developments in consumer preferences from region to region and dealers' problems from season to season, so that merchandising can be planned accordingly.

This is a principle established by Willoughby McCormick. His drummers and often he himself made the rounds in the territories to all the small towns as often as possible and in the intervals between trips dealers were deluged with a constant stream

(*This article continued on page 184*)

PROMOTION—through premiums, point-of-sale cards, mass displays—has always been a McCormick strongpoint. Miniature oil lamp (left) was popular premium in the '90s; tea bags are promoted today with teapot box-top offer. Jumble displays, well suited to small packages, are widely used. Tea-bag carton, incidentally, was first to use the "Mc" logotype.

FEMININE APPEAL was lacking in the former Styl-eez package design, printed in brown on buff stock. Note how much more effectively the new design brings out Styl-eez logotype, which is retained essentially unchanged.

SHOCKING PINK AND BLACK printing on white cover stock for Selby Styl-eez box is a refreshing departure from drab treatment of most shoe boxes. Color areas are proportioned so that body and cover match regardless of how cover is applied. Use of logotype on alternate ends of side panels identify box regardless of how it is partially withdrawn from shelf.

Up-styling the shoe box

SELBY TAKES ADVANTAGE OF DISTINCTIVE DESIGN IN A FIELD TOO LONG OVERLOOKED

Although a few manufacturers of "high-fashion" and custom shoes have broken away from uninspired, run-of-the-mill design treatment for shoe boxes, packaging innovations by high-volume shoe producers have been relatively limited. Thus there is news in the fact that The Selby Shoe Co., Portsmouth, Ohio, one of the world's largest manufacturers of women's shoes, has just introduced a distinctive new box design for its familiar Styl-eez line, which combines utility with strong identity and promotional value.

Seeking a complete departure from conventional shoe-box design, Selby referred the problem to a prominent Midwest design organization. It was recognized at the outset that full advantage should be taken of the advertising value of the box as it is carried by the purchaser. The fact that a handsome package requires no further wrapping by the shopkeeper was another element of customer service given due consideration.

The new Selby Styl-eez box, illustrated herewith, was so designed that the cover stock for body and cover could be produced by the shoe manufacturer's own printing facilities. Printed by letterpress in black and shocking pink on white porcelain litho cover stock, the set-up box replaces an earlier design printed in brown on buff stock. The brilliant sharpness of the high-key pink is subdued by the overprint of the black squares, which are of graduated intensity from dark to light on the pink, to light on the white half of the box, the same treatment being used on body and cover.

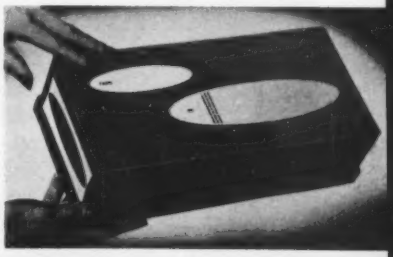
The established logotype of Styl-eez is retained and placed at alternate ends on the side panels of the box, to provide visible identification to the customer when the box is pulled out but not withdrawn from the shelf, regardless of which end is exposed to view. The package is so designed that the color break of the lid always registers with that of the side panels; the lid cannot be put on "wrong." Both ends of the new Styl-eez box are identical in color and layout to facilitate shelving and establish uniformity when stored on exposed shelves.

In another interesting departure from packaging practices in the shoe trade, the new Selby box carries a "To" and "From" shipping label on the bottom, handled as an integral part of the surface design. Actually, the label consists of two elliptical areas of white space, one of which bears the necessary mailing data so that the box can be mailed fourth class directly from the shoe store. A white space for size and model identity is provided on the end panels.

Marking the first stage of a comprehensive redesign program which will also include other Selby lines, the new Styl-eez box was recently selected by the Society of Typographic Arts of Chicago for its annual exhibit of outstanding printing designs at the Chicago Art Institute.

CREDITS: *Packaging design, Barnes & Reinecke, Inc., Chicago. Boxes, Patterson Paper Co., Portsmouth, Ohio.*

UNUSUAL FEATURE of new Styl-eez box consists of "To" and "From" labels on bottom of box, incorporated as integral part of the printed design. This facilitates mailing the package from retail store to customer.



MP DESIGN

Appetite panorama

The versatility of Roman Meal Cereal as an ingredient for home baking is demonstrated pictorially for the first time on the redesigned cartons adopted by the Roman Meal Cereal Co. For years, the package displayed a trademark circle that identified all the company's products. Today, an appetite-appealing illustration of a breakfast-table setting on front of the box wrap features dishes of hot cereal, muffins and flapjacks printed in full color using a magazine-type composition extending uninterrupted around the sides. For display interest, cartons placed sideways may be interspersed between others showing a full view of front panels to give the effect of a complete table arrangement. Recipes appear on the sides. The back also features a full-color illustration. After 50,000 printing impressions the vignette of the back panel is replaced with a new one so that in a shipping carton of 12 packages there are four complete sets of recipes and illustrations.

CREDIT: *Wraps, Louis Roesch Co., San Francisco, Calif.*

Trademark-shaped bottles of acetate for sampling

Transparent plastic bottles, molded in the shape of the famous Cities Service emblem, are the novel new give-away packages designed as samples for station openings, conventions, fairs, etc. The bottles contain $^3/_4$ oz. of electric motor oil, penetrating oil, eyeglass cleaner or spot remover. As a promotional tie-in with the company's radio program, "Band of America," similar plastic bottles containing three band-instrument oils are also sent to bands throughout the country. Injection molded of cellulose acetate and cellulose acetate butyrate, the bottles are light-weight, shatterproof and impervious to the oils. The spouts are cemented on after filling and have a red dip-dyed protective cover to prevent leakage after the spout has been opened. The labels are applied by decalcomania.

CREDITS: *Design, E. C. Tickner, Milburn, N. J. Bottles molded by Thermold Corp., Clinton, N. Y., using Tennessee Eastman's Tenite plastic.*

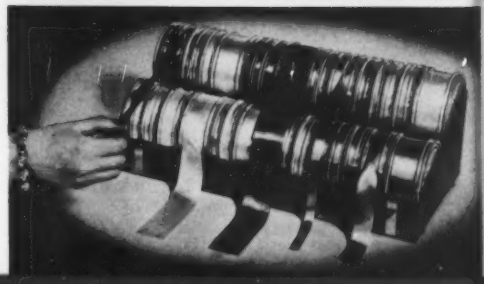
HISTORIES

Easier ribbon handling

A study of selling and stock-handling problems in the ribbon departments of variety and department stores led to the creation of the "Reel-Aid"—a two-piece demountable rim made of transparent polystyrene—by Martin Fabrics Corp., New York ribbon manufacturer.

The rim, which snaps over the top and bottom of Martin's ribbon put-ups, is designed to cut down soilage by protecting the ribbon edges from dust, dirt and handling. The plastic rims also keep the ribbon tightly rolled on the reel without the use of pins which mar the more delicate fabrics by leaving pinholes and the sales person can reel off required lengths without unrolling an excess that must be re-wound before the put-up can be returned to stock. This aids the clerk in handling a sale more quickly. Various assortments of Martin ribbons, equipped with the plastic rim, are offered in easy-to-handle metal cabinets.

CREDIT: *Rims molded by Sterling Plastics Co., Union, N. J., using Monsanto polystyrene.*



Raleighs split carton

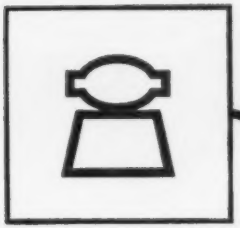
An ingenious new break-apart carton for Raleighs, Kools and Viceroys has been introduced by the Brown & Williamson Tobacco Co. to meet the growing demand for the 5-pack sale. It may be sold either as two 5-pack units or as a complete 10-pack unit. This "split carton," exclusive with B & W, consists of two complete cartons, each containing a row of five packs. Before they are broken apart along the folded perforated score line, the two tuck-in flap cartons rest side by side, their adjacent walls formed by a single strip of board. The individual packs may be machine or hand stamped without removal from the carton. The company says the split carton will not supplant the 200 carton, but believes it may be as important a "first" as the cellophane-wrapped 20s package which B & W claims to have been first to adopt.

CREDIT: *Carton, The Gardner Board & Carton Co., Middletown, Ohio.*

Lost and found: a trademark

ITS 'MIMEOGRAPH' NOW ANYBODY'S WORD, THE A. B. DICK CO.

IN FORCEFUL NEW DESIGN SHIFTS EMPHASIS TO COMPANY NAME AND SYMBOL



NEW DESIGN spotlights the mimeograph-machine symbol which formerly was lost in over-all design. Folding cartons replace envelopes for stencils and have unusual feature of opening either from bottom or side.

A complete repackaging program just announced by the A. B. Dick Co., Chicago, pioneer manufacturer of mimeograph equipment and supplies, was prompted by the fact that the word "Mimeograph," for many years the exclusive property of the A. B. Dick Co., had come to be used broadly as a generic term and entered the public domain. It was, therefore, no longer effective as the primary identification for the company's products.

When Albert Blake Dick discovered the principle of modern stencil duplicating in 1884, while seeking a faster way to supply his lumber business customers with up-to-date price lists, he laid the foundation for a world-wide business.

Since the early days, packaging has played an important roll in the company's operations. The first waxed stencil sheets were rolled and packaged in paperboard tubes identified by means of a printed label. Paste-type ink for the duplicating process was supplied in collapsible metal tubes. The emphasis during this early period was on product protection rather than package design, but that created no serious merchandising problem, since the company was the sole producer of this type of equipment and owner of the trademark "Mimeograph."

Packaging was steadily modified to keep pace with new product developments. The practice of rolling stencils and packaging them in paper tubes was abandoned in favor of a more convenient flat package. Wide-mouth cans with pry-off lids supplanted tubes for the special inks used in duplicating. Package design, however, took many different approaches through the years and packages were essentially individualistic rather than functional as members of a related team. The one unifying element of most of the earlier packages was the trade name "Mimeograph," which was prominently featured, while the company name received secondary position in the package designs.

Evolution of stencil package

About 1935 the company developed its first coordinated packaging program. At that time, and for several years thereafter, the basic stencil package was a paperboard folder which employed metal clasps as a closure. The new design marked the first packaging appearance of the "keyhole" symbol which had been used for some

time in A. B. Dick advertising. Consisting of an ellipse resting on a keystone-shaped trapezoid, the symbol represented a side view of a mimeograph machine. In the new package design, this figure formed the background for the printed information on the face of the stencil-sheet packages. The keyhole symbol was enclosed by a series of ruled lines or stripes, most of them paralleling the length of the package.

During the 1940–41 period a change-over was gradually made to a new envelope-type package with glued flaps, which was opened at the bottom. More economical than the clasp and folder combination, this package also offered somewhat more satisfactory reclosure, eliminating the problem of clasp breakage. The new design was transferred to these envelopes with detailed instructions on the preparation and use of stencils occupying the back surface of the package. Previously, this material had appeared on a separate instruction sheet.

The new envelopes, employing a light green patent-coated kraft-back stock, used aluminum ink for the striping and keyhole design and dark blue for the copy matter—the same combination previously used on the folders. During the war period, however, it was necessary to eliminate the aluminum and run the entire job in blue. The sheets were wrapped in quires (24) with an unprinted parchment sleeve, continuing the practice followed with the folder-type packages. Into each package went a white parchment folder containing cushion sheets used in the stencilizing process.

ALL PHOTOS COURTESY A. B. DICK CO.

ENVELOPES reproducing actual styles of lettering guides contained are well adapted to clean, modern style. Screen-plate packages have reproduction of surface provided by each style, for quick identification.

1935 DESIGN was distinctive at the time, but was outmoded by the changing competitive situation. Secondary trademark made up of the company initials is discarded in the new design.

In the early postwar period the envelope-type stencil package was retained, with some modifications. Detailed instructions regarding the preparation and use of the mimeograph stencil sheets were eliminated from the back of the envelope and transferred to the cushion-sheet folder. At the same time, the company began to utilize the back of this folder for promotional copy, including information about new A. B. Dick products. The sleeve wrapper, however, was continued. With the removal of instructions from the back of the package, this surface was printed with a series of parallel stripes, the keyhole symbol appearing at the lower left.

An accompanying illustration shows how the 1935 design was adapted to ink containers, lettering-guide envelopes, folding cartons for styli and related items. In this design, for the first time, the company name received greater prominence than the word mimeograph. On certain packages the latter term was repeated within a smaller symbol representing a side view of the duplicating machine.

The new design

After approximately 15 years of use the striped package design is now being supplanted. The change-over, effective March 15, entails not only a complete modification of surface design, but also important structural changes in certain packages which will simplify packaging operations and provide greater convenience and utility to the ultimate user.

Setting the pace for the new design are the new quire and double-quire packages for stencils, made in several sizes.

Actually a folding carton rather than an envelope, the quire package permits end identification—a great convenience when the stencil packages are stacked so that only the end may be seen. An interesting and unique feature of this package is the fact that it is constructed to permit either end or side opening, simply by breaking the glued flap seals at either point. This makes the package accessible regardless of its position in the desk drawer or cabinet.

The basic sheet used in the new quire packages is white patent-coated news, laminated with 30-lb. Lardback. This feature eliminates the need for the sleeve wrapper which had been used previously.

The packages are printed in one color—a distinctive green shade—with gloss inks which prevent finger smudges.

The new design, a complete departure, is built around three elements—a smaller, simplified keyhole symbol, the A. B. Dick name and the word "mimeograph," which has always been used with the modern trademark "A. B. Dick."

The green coloring covers approxi-

SMALL PACKAGES follow new family treatment. Note newly designed bottle for correction fluid with concave mouth to minimize dripping and the new molded polyethylene applicator cap.

mately four-fifths of the package area, permitting effective use of reverse white for the company and mimeograph name and as a rectangular background for the keyhole symbol. This treatment is duplicated on the back of the package with smaller type and symbol. All variable information is printed against the white band at the bottom of the package, permitting rapid change-over by means of simple slug substitutions and making it unnecessary to change the color plate. Upper-case typography is followed throughout, utilizing a clear-cut sans-serif face attractively letter spaced for increased legibility.

Company officials point out that the new keyhole design, although much smaller than that used formerly, is more readily recognized because it is set off by the white background and is in no way obscured by reading matter or other design elements. A great deal of deliberation went into selection of the revised symbol; for example, an outline rather than a silhouette type of treatment was chosen so that the symbol could be readily reproduced on the company's own duplicating equipment, in neon signs, etc. In its present form, the identity of the symbol is preserved even when it is reduced to very small proportions on the package.

The new basic package design was initiated and developed by the Dick company's Packaging Committee in conjunction with the design laboratory of the carton supplier. The industrial designer responsible for the 1935 package was again called in as consultant and worked with the committee from the initiation of the original design ideas until the completion of the basic package design.

The Packaging Committee consists of representatives of the executive, engineering, sales and advertising, art and legal departments. The art department translated the approved basic design into more than 300 package designs for odd-sized items which constitute the A. B. Dick mimeograph supply and accessory line.

The new design will eventually appear on the full line of A. B. Dick products as stocks of previous packages are exhausted. It is also being carried through on company letterheads, national advertising and other printed media.

Special applicator bottle

Among the most interesting of the new packages is the bottle for correction fluid. The bottle formerly used required introduction of a pierced-cork neck insert prior to the filling operation. It was used in connection with a molded phenolic cap, internally threaded, having a well on the inner surface to anchor the small brush applicator in place. This cap also required a separate gasket to obtain a leakproof closure.

The new bottle, specially produced to A. B. Dick specifications, has an inwardly sloping lip which prevents excess correction fluid wiped off from running over the edge. The mouth is held to a tolerance of plus or minus 0.010 in. to accommodate the new-type cap of molded polyethylene. The brush well on this cap is slightly tapered so that the typist, in using the correction fluid, can obtain a temporary but effective reclosure merely by pressing the cap down slightly into the bottle. This saves time and prevents evaporation of the fluid. When the bottle is to be put away, the cap is screwed down about one and one-half turns.

The new bottle and closure also speed up plant operations, since only three operators are required to fill the bottle, insert the brush in the cap, cap the bottle and apply the label. Filling is done on a four-station vacuum-filling unit which provides accuracy and smooth operation. Emerging from a notched turntable where the brushes are anchored into the molded well, the caps are placed loosely on the bottles. As they move by conveyor a short distance, caps are then forced down and proceed to a capping unit, where they are screwed down tight. Following application of the wrap-around label, the bottles are placed in folding boxes with a corrugated insert and printed instructions calling attention to their new convenience features.

CREDITS: *Design counsel, Walter Dorwin Teague, New York. Folding cartons, Container Corp. of America, Chicago. Envelopes for screen plates and lettering guides, Wicklander Printing Co., Chicago. Lithographed ink cans, Continental Can Co., New York. Correction-fluid bottles, Kimble Glass, Div. of Owens-Illinois Glass Co., Toledo, Ohio. Polyethylene caps for correction-fluid bottles, Formold Plastics, Inc., Chicago. Bottle labels, Sleepeck Helman Printing Co., Chicago.*

APPLICATOR CAP and brush are assembled in the rotary fixture in foreground and set lightly on the bottle of correction fluid passing on conveyor. Roller over belt sets cap in place and machine at end of line finally tightens it. The girl at the right is operating the cap tightener with her left hand and bottle-labeling machine with her right.

OVER-ALL VIEW of packaging operation, which requires only five operators to turn out 6,000 lbs. of sliced meats in 8 hours. Two conveyors from each of two slicing machines (left) take stacks of meat to pouch fillers (center), thence to rotary vacuum-sealing machine (right). Set-up is shown in flow chart on next page.

VACUUMIZED PACKAGE shows meat through window in orange-bordered front panel. Seven varieties of luncheon meats are marketed in this package. Each package contains eight 1-oz. slices.

Vacuum-pre-packaged meats

LOS ANGELES PACKER DEVELOPS A NEW TYPE OF VACUUMIZING MACHINE

SEALING SLICED LUNCHEON MEATS IN FLEXIBLE POUCHES 30 A MINUTE

Recently seven varieties of luncheon meats in flexible vacuum packages formed on a new type of machine had their test run in a San Bernardino, Calif., food market. Behind the introduction were two years of experimentation by the Rancho-Granada Corp., Los Angeles meat packer, which has developed and produced a unique, high-speed machine for vacuum packaging in flexible materials.

The new machine is reported to turn out 30 half-pound packages a minute with five girls on the entire production line. At this rate, during an 8-hr. day some 6,000 lbs. of assorted luncheon meats can be sliced, inserted in cellophane-Pliofilm laminated pouches, a vacuum pulled and the package sealed. Ten thousand pounds per day, or 1,250 lbs. hourly, is a maximum potential output—based on a yet-to-be-developed high-speed slicer. The slicing-machine bottleneck has so far limited production to 6,000 lbs. per day.

Rancho-Granada had long felt, as a packer, that self-service packaging should logically be the job of the packing house, not the food store. Yet packers have been reluctant to enter into self-service packaging for several reasons, one of which is the inability of most packers to compete with the wage scale of the average self-service packaging department. The only answer—if the packer was to enter the field—was a high-production machine and a package to give protection over a long period of distribution.

The complete production line at Grand Taste Packing Co., a subsidiary of Rancho-Granada, consists of: (1) two standard meat slicers, speeded up and modified to slice exact-weight slices, (2) an automatic stacking device and conveyor, (3) a semi-automatic loading assembly and (4) the automatic vacuum-packaging, heat-sealing machine.

The operation, which requires but 180 sq. ft., begins with two of the modified slicing machines, side by side, each capable of slicing two 12-lb. luncheon-meat loaves, 4 by 4 by 24 in. One girl feeds both slicers.

The 1-oz. slices are stacked, eight

POUCH FILLING is accomplished by opening pouch over U-shaped mandrel into which meat is pushed on a hand slide. Filled bag then drops to belt taking it to sealing machine. Operator on each side handles two fillers.

VACUUM CHAMBER, open, with package inserted ready for seal. This is one of eight chambers filled in rotation as table revolves. A vacuum is drawn on the package in the first five-eighths of revolution and heat seal is then made.

high, as they come off each slicing machine and the stacks are fed onto two intermittent conveyor belts, synchronized with the slicing machine, which deliver them to the two bag-filling points.

The hand-operated bag filler is a combination of a mandrel, over which the laminated pouch is opened and held open, and a horizontal slide on which the stack of slices is placed and pushed into the pouch. One operator stands between these two filling devices, operating them both at once.

Filled pouches then fall from the mandrels onto a single wide conveyor belt which runs between the two packaging lines. This conveyor is continuous and carries the pouches to the rotary vacuum-heat-sealer unit, the heart of the operation.

Here, a single operator feeds a pouch in turn into each of the eight vacuum chambers arranged around the perimeter of the revolving circular table. The machine, in steady operation, makes one complete revolution every eight seconds, which means that chambers can be loaded and discharged at a rate of one a second, producing a theoretical maximum of 60 packages a minute. At present, however, the company claims only 30 half-pound packages per minute.

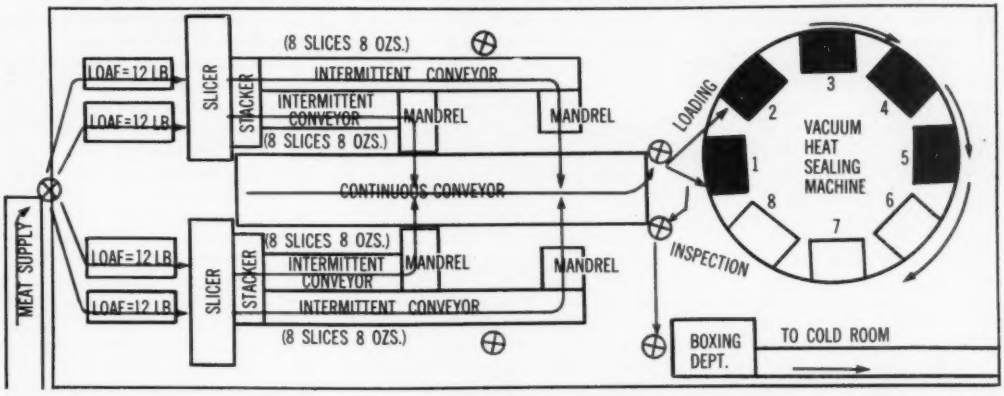
The first five-eighths of the clockwise revolution of the machine are devoted to pulling the vacuum—reportedly in excess of 29 in. In the remaining three-eighths, while the package is held under vacuum, the heat seal is applied by the simple jaw-type sealer that is built into each head. Sealed packages are ejected from the machine as the chamber opens after the complete revolution and are inspected, boxed and moved by conveyor into cold rooms. A single central switch controls the entire operation.

It will be noted that this machine differs from the one used by Ryser Bros., Inc., in Chicago* in that its rotary action is in a horizontal plane, whereas the Ryser machine rotates vertically, like a ferris wheel.

The machine can easily be converted, it is said, to handle packages of many sizes, up to 4 lbs., and varied dimensions. Chambers are removable for modification. The pilot model is presently turning out 1/2-lb. sizes only,

* See "Cheese in Vacuum," MODERN PACKAGING, April, 1950, p. 132.

FLOW CHART OF VACUUM-PACKAGING OPERATION



⊗ Position of Operator ■ Vacuum Pulling Portion of Revolution □ Heat-Sealing Section of Revolution

but has been successfully test run to the maximum size.

Automatic slicing to an exact weight is one of the important factors in the successful operation. Except for random check weighing, this eliminates post-packaging weighing.

It appears that the new machine, and others like it, may well put self-service packaging of meats into the hands of the packers. The usual cellophane-wrapped, self-service package breathes, of course, and shrinkage and discoloration have been the limiting factors on shelf life. Because sausage products (luncheon meats, for instance) have a high water content, this shrinkage was particularly severe.

Rancho-Granada expects to package bacon in the same manner as it does luncheon meats. It envisages the time when a single, centrally located packaging firm (a meat packer, in this case), will be able to supply self-service departments the nation over.

There are two limitations, as the packers see it, to this arrangement: (1) the degree of sterilization that can be achieved in the product itself and (2) stability of the vacuum seal. Theoretically, at least, a 100% vacuum pack can hold its airtightness indefinitely.

Elimination of "leakers" has been a prime problem with most attempts at flexible vacuum packs. However, Rancho-Granada claims a 100% airtight seal from its machine and reports that "the sealing has, actually, been one of our lesser problems." The company has experienced what it calls very satisfactory package life, with some packages still holding their vacuum after four months, it is said.

Sterilization of the product is a processing rather than packaging problem. However, it has a very definite bearing on shelf life.

The vacuum does not affect the life of bacteria existing within the package. Luncheon meats lose much of their flavor if heated to 240 deg. F.—which is the normal temperature for complete sterilization when meat is canned. The usual luncheon-meat processing temperature is about 160 deg. F., which leaves the product practically, but not completely, sterile. This, combined with the high efficiency of the modern self-service box—whose normal temperature is 35 to 40 deg. F.—should prohibit any significant amount of bacterial action, the packers believe.

Pouches for the seven varieties of sliced meats now being packaged by Grand Taste are standardized at 7$^{3}/_{4}$ in. long by 6$^{1}/_{4}$ in. wide. The exterior is cellophane, laminated to Pliofilm on the inside. The cellophane is printed in three colors on the reverse side. The package design employs a wide orange border with center transparent windows 3$^{5}/_{8}$ by 3$^{3}/_{4}$ in. on front and back. Lettering is in yellow and blue. A yellow price spot, with the weight, 8 oz., is located on the front, midway in the window and to the left. All pouches are identical with the exception of the product name in blue on the front window.

Success of the machine and package has led to the formation of a subsidiary of the Rancho-Granada Corp., which will manufacture the machine and supply it to other packagers. Patents on the process, which the company calls Flavor Seal Pac, are pending. According to Monte Moses, president of Rancho-Granada, the machine "will be very competitively priced with existing standard models of packaging equipment."

CREDITS: *Machine, Flavor Seal Co., subsidiary of Rancho-Granada Corp., Los Angeles. Laminated pouches, Milprint, Inc., Milwaukee, and Standard Cap & Seal Corp., New York.*

LEAVING MACHINE, packages are inspected and packed immediately in cartons holding 20 of the packages, which are tied and conveyed to cold storage. Speed of the operation is 30 packages a minute.

COMPACT MACHINE with rotating top has 8 filling heads, each with its own vacuum line and heat-sealing bars. Single button (left) controls machine.

MODERN

1 Transparent tubes extruded of cellulose acetate butyrate are effective packages for Actual Lures, which are real fish for use as bait, said to be durable for two years when sealed in pliable protective coatings. The container serves as a visual merchandiser and is re-usable in the angler's tackle box. Name of the product and maker are imprinted on the tube. The tubes are made in three sizes to hold small, medium and large fish. Container, Extruded Plastics, Inc., Norwalk, Conn. Plastic, Tennessee Eastman's Tenite.

2 Small emery boards packaged in catch-books similar to the ones used for book matches have been introduced by the Lion Match Co. Called "Emery-ettes," these packets contain 12 small emery boards convenient for carrying in purse or pocket and retail for 5 cents. A standard 48 match-book-sized carton with fold-back, die-cut lid forms an eye-catching display at point of sale with price prominently shown in a circular patch. Carton, National Folding Box Co., Inc., New Haven, Conn.

3 Another new product utilizing the catch-book package is Lipettes—15 individual lipsticks, each good for two to six applications—marketed by the Lip-Tip Co., Div. of Perin Products Corp., who also make the packets. This catch-book has built-up sides and a metal mirror attached to the inside cover. Inside of the packet is colored red to make unsightly lipstick smudges less obvious. The product sells for 20 cents and is available in six different shades.

4 One of the most striking of Kingan & Co.'s 23 canned meat items now appearing with new labels is Kingan's Reliable Skinless Wieners, carrying a human-interest illustration of a little girl eating a wiener on a bun. All the new labels have the top half in the distinctive deep royal Kingan blue and the lower half in bright yellow, with product name in red. Other items in the line have product vignettes in full color. Design, William McVaugh, Jr., Pendleton, Ind. Labels, Benham Press and Hendren Printing Co., Inc., Indianapolis, Ind.

5 Cluett Peabody & Co.'s first use of a folding carton counter display since the war is designed to encourage the sale of Arrow men's handkerchiefs in larger units. Three handkerchiefs banded as a unit sell for $1, while singly they sell for 35 cents. The simple, dignified design of the display carton harmonizes with usual men's store decorations. An arrow in bright red contrasts with the gray printing on the white paperboard. A locking tab holds the back piece upright, while side tabs hold the handkerchiefs in place when on display. Carton, Robert Gair Co., Inc., New York.

6 The new protective package for Willsonite brand sunglasses, merchandised by Willson Products, Inc., is said to prevent damage to the product in a five-floor drop to a concrete walk. Overcoming previous breakage problems, the new package uses a single sheet of cushioning corrugated material to which the glasses are attached, with several layers of pliable corrugated paper cut to the size of the merchandise card. This is packed in a scored, one-piece folder sealed with gummed tape. Package, The Hinde & Dauch Paper Co., Sandusky, Ohio, using their "Plypak" corrugated cushioning material.

7 An over-all pattern consisting of the words, "Bill DeWitt," the "BD" trademark and a fish-hook drawing enclosing the words, "Good Hooks," gives family distinction to the newly designed cartons for the line of fish hooks marketed by the Bill DeWitt Div., Shoe Form Co., Inc. Name, catalog number, description and, in some cases, an illustration of the item are clearly marked on end panels for easy identity on dealers' shelves. Rigid transparent plastic boxes made by the parent company package the individual fish hooks. Cartons, Earlville Paper Box Co., Earlville, N. Y. Plastic "Pyra-Shell" boxes, Shoe Form Co., Inc., Auburn, N. Y.

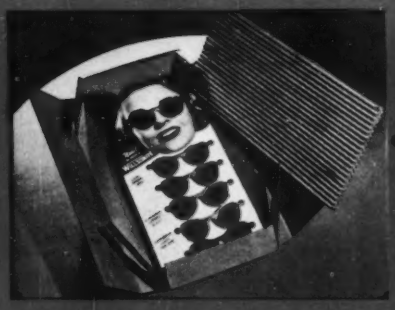
8 The first important label-design change made by the Illinois Canning Co.'s long-established Joan of Arc brand of kidney beans gives stronger emphasis to brand name and quicker identity of the product when stocked on retailers' shelves. The new labels display the Joan of Arc trademark figure, formerly on the back panel, cut into the vignette on the label face. Labels, Stecher-Traung Lithograph Corp., Rochester, N. Y.

9 Pacquin, Inc., known for years as makers of hand cream, are now marketing a new product—hand lotion—packaged in private-mold bottles holding 6½ and 3 fluid ounces. Labels on these graceful easy-to-hold bottles feature the Pacquin name and call attention to the "completely new beauty lotion." The word "lotion" is given prominence in a ribbon design on the label. Bottle, Hazel-Atlas Glass Co., Wheeling, W. Va. Caps, Owens-Illinois Glass Co., Toledo, Ohio. Labels, J. C. Dillon Co., New York.

10 Design of the carton for French's Instant Potato—a new product being sold by The R. T. French Co., makers of French's Mustard—was selected as the most effective from a group of packages, varying in shape and layout, on the basis of store tests by French's sales department. The package design is disarmingly simple, has no illustrations, but capitalizes on the good-will value of the company's trademark—the brand name, "French's," in a red pennant. Lettering of the words "Instant Potato" is slanted and placed on an incline to parallel the French name. Color scheme is buff, brown, red and white. Design, Thomas D'Addario, New York. Carton, Rochester Folding Box Co., Rochester, N. Y.

11 An interesting combination package by Kathleen Mary Quinlan, Inc., offers their regular containers of Hormone Cream and Hormone Oil in a pyramid-shaped

PACKAGING PAGEANT



0.0075-gauge acetate container. A paper disk on top of the jar has a die-cut hole the same diameter as the base of the bottle; this and the beaded top of the container hold the bottle in place. A disk die cut to the diameter of the jar fits into the bottom beading of the container to hold the jar in place. When assembled, the bottle is fitted with the disk and dropped in the container; the jar is then dropped in on top of the disk; the bottom disk is then jammed into the lower bead. Container, Miro Container Co., Brooklyn, N. Y., using Monsanto "Vuepak" acetate.

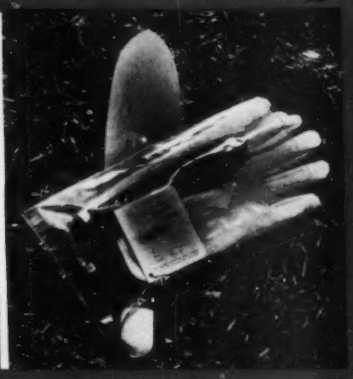
12 Consumer surveys pointing to the high impulse purchases (92.8%) of pretzels prompted Halter's Pretzels, Inc., Canton, Ohio, to redesign its package for Tem-Tee pretzel sticks. This design, said to be rated high in impulse value by disinterested package designers, utilizes bakery white, maroon, yellow and red, with full-sized pretzel photographs on all four panels. Highly glossed, heavily paraffined paper used for the wrap adds luster to the package and offers greater protection to the product. The product is packaged in three different sizes. Wrap (Kala-Kote), Kalamazoo Vegetable Parchment Co., Kalamazoo, Mich.

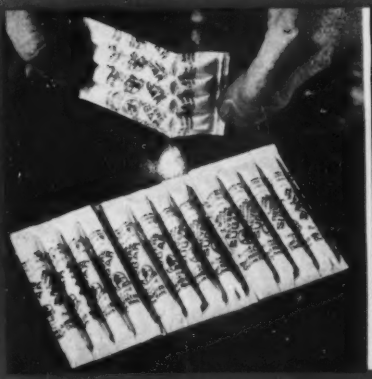
13 A minature bottle of perfume and a lipstick are packaged together as a clever new purse unit called the Midnight Lipstick-Perfume Combination and is to be introduced by Tussy Cosmetiques next month. The two items are housed in a sapphire blue metal cylinder. The perfume, in a miniature bottle encased in metal, fits into one end of the cylinder and the lipstick in the opposite end. Design of the cylinder carries out the motif of Tussy's Midnight cosmetics. The unit is timed as a graduation gift, for summer vacation use or as a week-end hostess gift. Cylinder, Eyelet Specialty Co., Waterbury, Conn.

14 One of Rogers Plastic Corp.'s newest combination packages is this Big Apple hostess set which appealingly presents in a paperboard display carton a large apple-shaped polystyrene bowl and four smaller bowls similarly designed. Lid of the folding carton folds back for point-of-sale display to show a large red die-cut apple. Six of these sets are packed to a master carton. Carton, Box Makers, Inc., West Springfield, Mass.

15 This printed cellophane wrapper for Wisconsin Tissue Mills' Garden Party napkins shows how the skillful use of design and color in a package can contrast with the product itself to achieve an attention-getting unit. Texture and color of the napkins are clearly visible through the transparent section of the printed wrap. Neat and clean in appearance, the wrap gives prominence to the brand name with a view to gaining repeat sales. Wrap, Milprint, Inc., Milwaukee, Wis.

16 The novel feature of Edmont Mfg. Co.'s "Green Thumb" gloves—gardening gloves made of vinyl-impregnated fabric with the thumb colored green—is not lost to the customer's view through its tailor-made polyethylene-film package. In addition to providing visibility of the product, the package protects against soiling, separation and general shop wear. Brand identity is pro-





17 18 19

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21

PAGEANT

vided by the printed paperboard card tied to the gloves by string. Package made by Shellmar Products Corp., Mt. Vernon, Ohio, using their "Shellene" polyethylene.

17 These new fluted packets contain single servings of Revere sugar, designed for restaurant or institutional use where granulated sugar is required. The packets illustrated are made in strips of four, perforated for easy separation. Printed near the top is an arrow, together with the instruction, "To open, break back on dotted line." The packets are packed 300 to the box, 10 boxes to a case. Similar single-cell packets contain ¼ oz. of sugar. Packets, Unit-Packet Co., Chelsea, Mass.

18 Skolex Sun Allergy Cream—a new product by the J. B. Williams Co., makers of Skol Suntan Lotion—is packaged in a collapsible metal tube, convenient for the user to slip into a beach bag. Surface design of the tube, repeated on the folding carton, suggests the nature of the product, which is to protect the skin of persons allergic to the sun's ultraviolet rays. Tube, National Collapsible Tube Co., Providence, R. I. Carton, Brooks Bank Note Co., Springfield, Mass.

19 The latest addition to the Dennison Mfg. Co.'s stationery line is this handy home kit of mailing and shipping supplies. Similar to the company's cellophane package for gift wrappings (see Modern Packaging, Jan., 1950, p. 99), the Package Wrapping Kit contains four large sheets of kraft wrapping paper and 24 strips of gummed kraft sealing tape. A separate band of cellophane automatically heat sealed to the cellophane envelope forms a separate compartment for an assortment of mailing labels. Cellophane, E. I. du Pont de Nemours & Co., Inc., Wilmington, Del. Bag-fabricating machine, Simplex Wrapping Machine Co., Oakland, Calif.

20 A comparison of the newly designed carton (right) for Marcal Hankies, product of the Marcal Mfg. Co., with the former design shows how a package can be brought up to date without loss of its recognition value. By eliminating top and bottom bands, a smarter package with more shelf appeal and an illusion of greater display area has been created. Design, Egmont Arens, New York.

21 To introduce its new K-95 all-purpose disinfectant, Whitman Laboratories is using this special offer featuring two pint-sized bottles of the product packaged together in a handy carrier carton. Regular price is 59 cents a pint, while the two-bottle deal sells for 69 cents. The stock amber bottles are given distinction by the use of three-color paper labels. Bottles, Owens-Illinois Glass Co., Toledo, Ohio. Closures, The Celon Co., Madison, Wis. Labels, Walle & Co., Inc., New Orleans. Carton, Central Carton Co., Cincinnati, Ohio.

CUSTOMER takes purchase to service desk on one of three floors, tells attendant she wishes to pick it up on upper level of parking structure. Attendant gives her a claim check, pastes stub on box. Additional purchases may be checked at other service desks with same claim check. At package-delivery station on parking structure, the customer will find that all of her purchases are waiting for her.

PACKAGE CHUTE
TO FIRST FLOOR SERVICE DESK ONLY
CAUTION... IS IT BREAKABLE?
ALL MERCHANDISE MUST BE WRAPPED
KEEP DOOR CLOSED
DO NOT CHUTE PACKAGES OVER 30 IN. LONG

PACKAGES are put down chutes, with openings conveniently located throughout store. This one is for packages to be picked up on the first floor. All chute doors are identified with directions.

Chute the package

Acceptance of packaged merchandise in department stores is facilitated by any system that makes it easy for the customer to take her purchases with her.

When Wieboldt Stores, Inc., opened its ultra-modern new Evanston, Ill., department-store unit recently, customers were delighted to find that the vexing problem of carrying packages all over the store had been neatly solved by means of a well-coordinated package-handling system.

The specially planned installation, similar to several others in the most modern department stores of the country, involves a service desk on each floor where shoppers can check their purchases on a single claim check.

All the packages are then chuted down to the first-floor service desks and assembled there, or, if the patron prefers, they are taken directly to the adjoining double-decked parking structure, which accommodates 744 cars.

After completing her purchases, the customer picks up all her packages together, at the proper service desk, or finds them awaiting her in the parking area. Super-mart food purchases may also be delivered to the parking structure if desired.

Customers free to shop

Utilizing chutes and conveyor belts, the Wieboldt package-gathering system virtually eliminates the need of juggling packages from floor to floor, speeding up the entire package-delivery operation and leaving patrons free to concentrate on shopping rather than package toting.

Purchases for delivery to the customer's home are wrapped at or near the sales counter, chuted to the basement and carried on a conveyor belt to a waiting delivery-service pick-up truck in a matter of minutes. The system eliminates the usual "manhandling" of packages from the time they leave the sales floor until they enter the truck.

Other innovations

Designed from "the inside out" to embody the latest innovations in streamlined department-store merchandising, the new Wieboldt building features such customer attractions as a super food mart, in-store prepackaging of many perishable items such as bakery goods, dairy products and cold cuts, and a self-service arrangement in the basement household and houseware department. Through the latter department, an outgrowth of the "Toy-teria" introduced by the company as a wartime emergency measure, shoppers can select their purchases from a wide variety of displays and then go to the mechanized checkout counter for rapid packaging of their purchases.

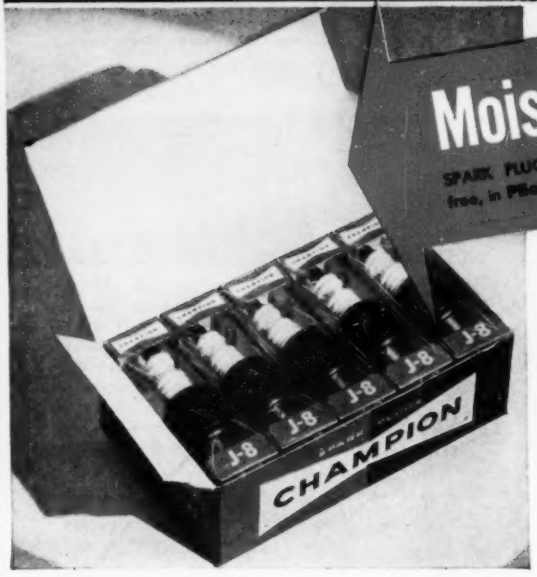
DELIVERY END of the chute where packages from second and third floors are assembled with purchases from first floor, either for pick-up by pedestrian customers at service desk or at pick-up station customer designates.

STOCK BOYS collect from first-floor service desk packages to be trucked to the parking structure as directed by the customer. They have already collected purchases made by customers from the store's food department.

WIEBOLDT'S COUNTER-TO-PARKING-LOT MECHANIZED SYSTEM ENCOURAGES TAKE-HOME PURCHASES OF PACKAGED MERCHANDISE

TRUCK carrying packages from the store is unloaded at the ground level of the package-delivery station on the parking structure. There is a station on each level. A conveyor belt takes assembled purchases to the upper deck for customers who have parked on that level. This is a top view of the conveyor belt between the two decks.

AT PARKING STRUCTURE, customer stops her car beside the package-delivery station where she surrenders her claim check and an attendant loads all her purchases in her car for her.



Name packaging —here's the

GOT a problem package? You belong in this picture, too.

For these are just a few of the difficult packaging jobs now being done—with notable success—by **Pliofilm.**

Pliofilm is air-moisture-liquid-tight. It controls moisture transfer, to keep moist foods moist, dry foods dry. It's tough, tear-resistant—protects everything from sheets to spark plugs until they reach the consumer. Transparent, it prints clearly, shows off your product at its very best.

Why not put this versatile film to work for you? For information on your particular problem, write: Goodyear, Pliofilm Department, Akron 16, Ohio.

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We think you'll like
"THE GREATEST STORY EVER TOLD"
Every Sunday—ABC Network

Pliofilm, a rubber hydrochloride—T.M. The Goodyear Tire & Rubber Company

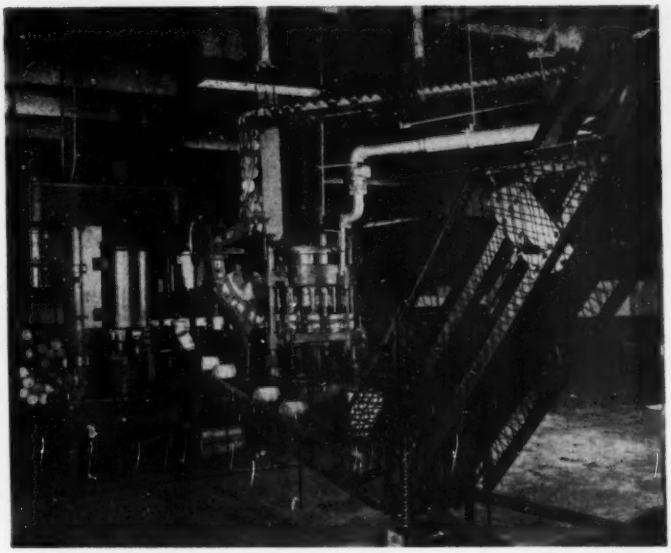
Lesson from the canners

SOCONY'S PRODUCTION OF MOBILOIL IS TRIPLED BY THE ADOPTION OF FOOD INDUSTRY'S CONVEYORS AND HIGH-SPEED EQUIPMENT

Can packaging equipment and package-handling techniques developed for one industry pay off when adopted by a totally different industry if the container itself is basically the same?

One answer to this question may be found in what happened when Socony-Vacuum Oil Co., Inc., modernized the packaging operation at its East Boston, Mass., plant where Mobiloil is repacked from bulk into 1-qt. cans for distribution in the New England area.

To get higher speeds on the motor-oil canning line without increasing labor costs, Socony-Vacuum revamped the line to function like that of a canning line of a food-processing plant, where high-speed equipment is a "must." Essentially two improvements were made: (1) five new pieces of equipment were installed, including a new unscrambling table and a nine-pocket can-filling machine capable of filling 250 cans per minute automatically and (2) the conveyors set up to move the cans through the line were modernized by adding to them and rerouting some of them for greater efficiency.



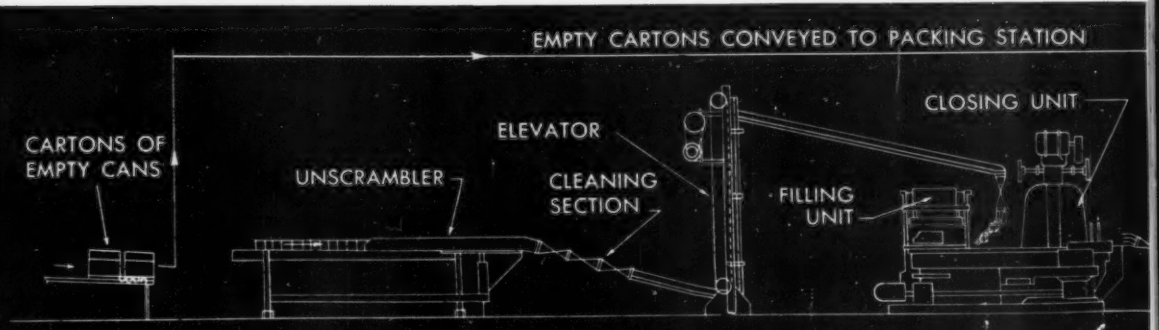
FILLER AND CAN-CLOSING MACHINES are synchronized to give an output of 250 cans per minute. Closing machine (left) also embosses grade of oil on the can top. The booster conveyor (right foreground) carries the cans to the automatic carton packer, gluing and sealing equipment.

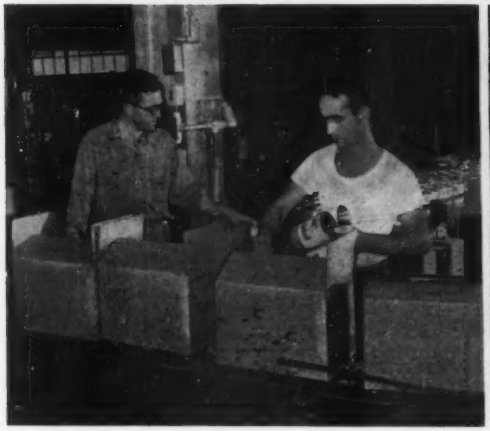
As a result, a freight car of empty cans is unloaded and the cans filled, capped, packed and loaded into another freight car or sent to storage in only 4½ hrs.–66⅔% less time than previously required. Seven men—no more than were needed before the modernization program was undertaken—handle this entire packaging operation.

Until recently, the empty Mobiloil cans were delivered to the plant in units of 120, packed in layers in large paper containers. By the old method, canning operations had to be suspended while these paper bags were unloaded and the empty cans arranged for filling—a costly amount of time. Company engineers, working with packaging engineers from the can supplier, tackled this "bottleneck" first and recommended a different packing arrangement for the cans, plus changes in the package handling.

The cans are now delivered to the plant in neat, unsealed cartons, the same way they are delivered to food processors.

When the freight car is spotted at the siding, a portable, powerized belt conveyor is rigged up into the freight-car door and the cartons—24 cans in each one, 2,250 cartons in a carload—





CARTONED EMPTY CANS, which were previously delivered in paper bundles, now reach the unpackers directly from a portable conveyor which has been rigged up between the packaging line and freight car.

NEW UNSCRAMBLER at head of line feeds stream of empties into conveyor that inverts them to empty out foreign particles (foreground).

PORTABLE CONVEYOR at loading platform receives filled, sealed cartons of cans 4½ hrs. after can shipment.

are quickly moved inside the plant. This portable conveyor feeds the cartons directly onto the skate-wheel conveyor which carries them to the beginning of the packaging line. Here they are unpacked rapidly and easily by two men, who remove the empty cans and place them upright on the new unscrambling table. The emptied cartons are left on the skate-wheel conveyor, which takes them to the end of the filling line where the carton packer is located.

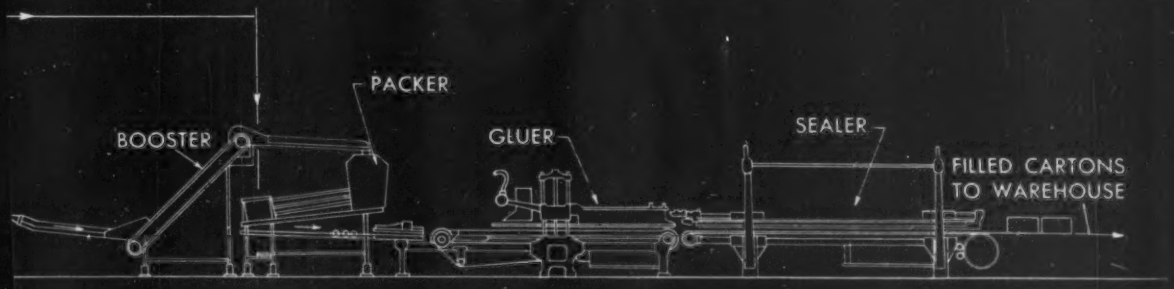
As the cans leave the unscrambler, they feed into a revolving disk taking them into another conveyor that gradually twists in a complete turn so that each can is inverted to dump out any metallic dust or foreign particles. The cans continue on the conveyor to a vertical elevator—a space-saving innovation—that lifts them to the overhead gravity track which serves as the "hopper" for the filling machine. Filling is accomplished quickly on the new machine, with its average output of 240 cans per minute. Directly beside the filler and synchronized with it is the capping machine. While the cans are automatically capped, the grade of oil is at the same time embossed on the can cover by the machine.

Gravity tracks, installed to handle the filled and capped cans, cover a short distance to a double-belt "booster" conveyor used to lift the cans into the infeed of the carton packer. The packer reloads the cartons, arranging the cans in two layers of 12 each. The filled cartons are then branded, glued, dated and sealed automatically and sent by conveyor back to a box-car or into storage.

Now considered by Socony-Vacuum as one of its most efficient installations, the East Boston plant is one example of how modern package-handling methods and equipment used by one industry can be used effectively by another when the container is similar, even though the products of the two are completely different.

CREDITS: *Cans, can clean-out conveyor, elevator conveyor and capping machine, American Can Co., New York. Can filler, Sprague-Sells Div., Food Machinery & Chemical Corp., Hoopeston, Ill. Unscrambler, double-belt booster and carton-packing machines, Standard-Knapp, Div. of Hartford-Empire Co., Portland, Conn. Dating, gluing and sealing machines, J. L. Ferguson, Inc., Joliet, Ill. Powerized conveyor, Sawin Machinery Co., North Quincy, Mass. Portable conveyor, Speedway Conveyors, Inc., Buffalo, N. Y.*

FLOW CHART of modernized packaging line for Mobiloil at Socony-Vacuum's East Boston, Mass., plant shows the extensive use of conveyors which, combined with new unscrambling table and high-speed, nine-head filling machine, reduces by two-thirds the time needed to handle a full carload shipment.



The unique construction of this display piece for Jade-Ite restaurant dinnerware made by Anchor-Hocking Glass Corp. affords complete visibility for each of the products actually placed upon the unit. The display is constructed of 200-lb. "B" flute corrugated board which is cream colored and smartly printed in red and brown. Its special construction feature is an unusual lock-and-tab assembly throughout, which requires no stitching or gluing and enables quick and easy assembly by the user. Display, River Raisin Paper Co., Display Division, Monroe, Mich.

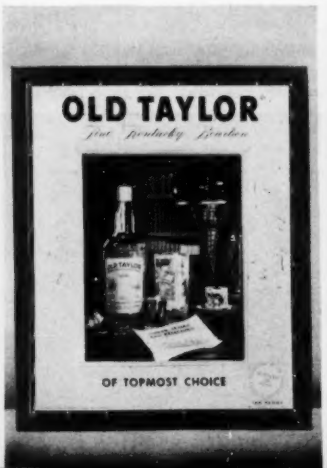
BE SAFE! BE SURE!
Wintite
SASH LOCKS
More than a sash fastener . . . A real sash LOCK!
Locks Securely • Ends Rattles • Stops Drafts
AMEROCK SASH LIST TO MATCH WINTITE SASH LOCK

American Cabinet Hardware Corp. now merchandises its Amerock's patented Wintite Sash Locks in this self-service carton that advises, "Lock your windows like you lock your doors." Designed either for counter or window display or for use as a shelf stock box, the carton holds 12 sash locks packaged in paper envelopes with center windows that permit customers to see the construction, finish and other features of the products. Blue envelopes indicate wrought steel locks; yellow, wrought brass ones. Display, P. J. Kansteiner Co., Milwaukee. Envelopes, Garden City Envelope Co., Chicago, and Gaw-O'Hara Envelope Co., Chicago.

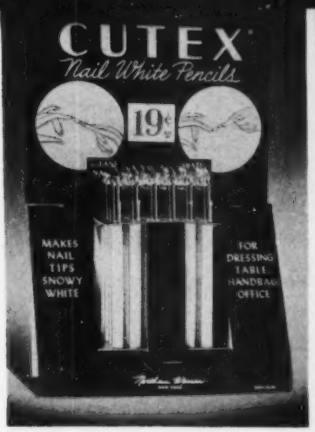
MP DISPLAY

With reports indicating that 22% of light bulbs are sold in the spring, Sylvania Electric Products, Inc., is making this "Quick Turnover" counter display carton promoting a spring light-housecleaning program. Each of the display units contains 124 assorted bulbs in the most popular sizes.

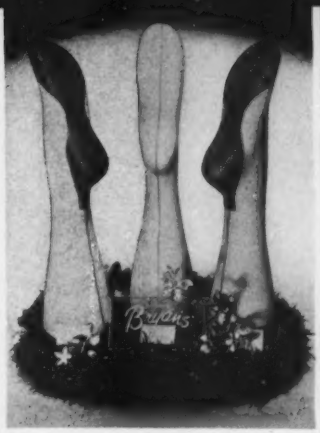
Among the display finds of the year are the new color transparencies produced by eight-color lithography on vinyl plastic sheeting. With shadow-box back lighting like this Old Taylor unit, they assure night-and-day display duty for only a few cents a day to operate. Technicrome process, Einson-Freeman Co., Inc., Long Island City, N. Y.



America's outstanding cowboy hero is featured on the counter merchandiser for Daggett & Ramsdell's new "Hopalong Cassidy Pure Castile Soap." The display holds 12 window cartons, each with four cakes of soap. Full-color illustrations of "Hoppy" and his horse, "Topper," printed on the bottom of each carton are cut-out "trading cards." Display and individual cartons, F. N. Burt Co., Inc., Buffalo, N. Y.



An easel-type display card has been selected by Northam Warren Corp. for its Cutex nail-white pencils. Fitted with 24 pencils standing upright in die-cut openings, this self-selling unit comes to the retailer ready to be placed on the counter. Price is prominent in a center patch, while line drawings showing how to use the product appear in circles on each side.



A striking display is this "three-leg" presentation for Bryan Full-Fashioned Hosiery. Hollow leg forms are of frosted acrylic. Flower-studded grass covering for the permanent metal base is keyed to Bryan's current "Spring Fever" theme. New coverings will tie in with future promotions. Display, Vargish & Co., Inc., New York, using Rohm & Haas "Plexiglas."

Designed especially for retail outlets with limited display space, Consolidated Cigar Corp.'s new compact counter display box is likely to be given a prominent "up front" position. Each holds 10 Harvester Handy Pocket Packs, or 30 of the popular-priced cigars. Top of the box has space for price marking. Cartons, Rochester Folding Box Co. Rochester, N. Y.

GALLERY

In time for summer snapshot days, Dennison Mfg. Co. introduces a compact, self-service merchandiser, designed to save counter space, for pocket-style photo corners. Shipped all assembled, the unit occupies only 6¼ by 4½ in. of counter space and holds four dozen envelopes of photo corners. Dealers may choose cartons which Dennison merchandizes with all photo corners in one of 11 available colors or with an assortment of colors selected on the basis of an analysis of consumer buying habits.

Coty's 1950 Muguet de Bois window and store display is as much a harbinger of spring as the "first robin sighted." Tying in with the lilies-of-the-valley theme, this merchandiser holds several of these cosmetic items—talc, toilet water, sachet and dusting powder—in a variety of containers including glass bottles, folding cartons and set-up boxes. Made of paperboard and lithographed in full color, this point-of-sale display is designed to promote sales in drug stores throughout the country. Display, Einson-Freeman Co., Inc., Long Island City, N. Y.

Theme packaging

INTERNATIONAL SILVER'S CUSTOMER-WINNING CAMPAIGNS PROVE THAT ONCE-IN-A-LIFETIME DECISIONS CAN BE INFLUENCED BY PACKAGING

GIRL GRADUATES are sure to be future customers when given one of these "diploma-roll" boxes containing an International Sterling teaspoon in their favorite pattern as a gift from their dealer.

The vast promotional potentials of a package as the basis of an entire merchandising and advertising theme for such luxury goods as sterling silver, fine china, glass and quality household linens are only beginning to be fully realized.

There are many lessons to be learned from firms that are doing the successful pioneering in these fields.

One of the undisputed leaders is the International Silver Co. Not only was this firm first to develop the completely new way of packaging individually every piece of sterling silver flatware in polyethylene bags,* now adopted by several of the leading makers of sterling silver, but it has long recognized the value of package promotions to stimulate gift sales and to promote life-time customers for International Silver patterns.

This year, International's "The Girl of Your Dreams" promotion is built entirely around a 6½-in. transparent acetate tube package. Printed on the tube in white are the words, "Graduation Congratulations," together with printed ribbon bows suggesting the ribbons around a diploma.

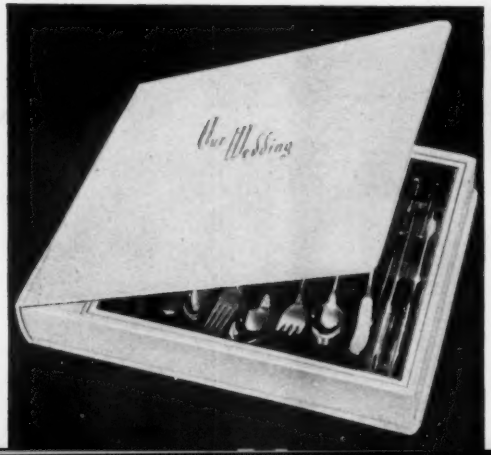
Between now and the end of the school season, thousands of girl graduates will be presented with one of these boxes containing a teaspoon in their favorite International Silver pattern as a gift from their local silver dealer.

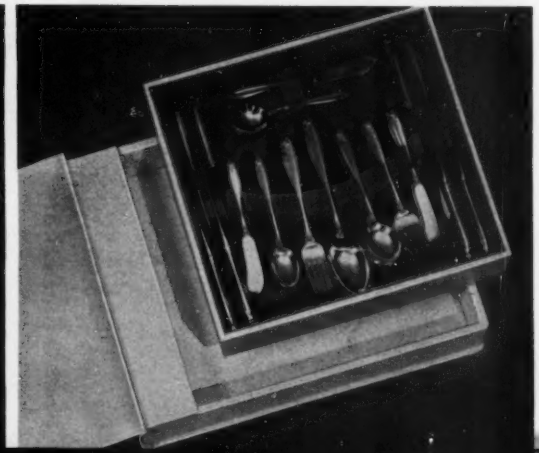
The idea behind this package promotion is obvious—"a teaspoon now; a customer for life." During the graduation season, the company knows fond relatives and friends will be giving gifts to the girl graduate. Within a few months, she will be getting herself a job, with her own money burning a hole in her pocket. In a few years she will be getting married—the time when she gets the most gifts. Already she is dreaming of a home of her own.

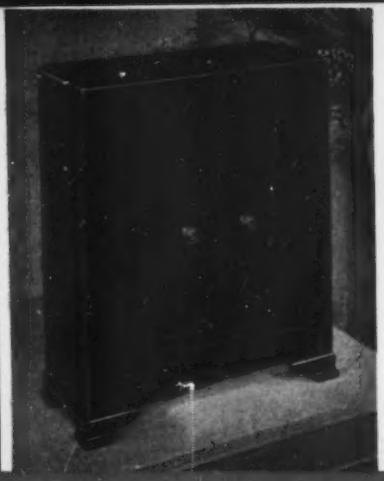
The little gift package containing an International Sterling teaspoon in her favorite pattern, picked out through the dealer's invitation to come in and select it, is practical assurance of the beginning of the sale of a complete International Sterling service.

* See "Sterling in Polyethylene," MODERN PACKAGING, July, 1949, p. 70.

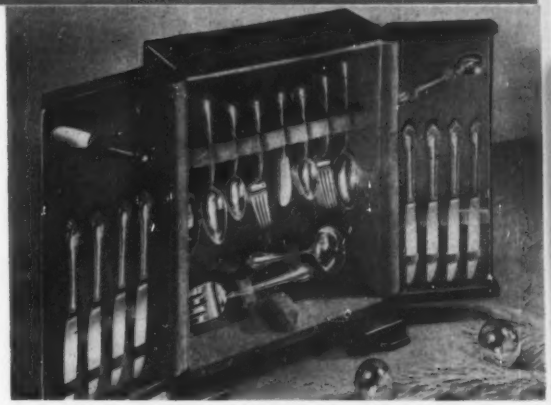
BRIDE'S MEMORY CHEST, covered with white leatherette, contains a concealed music box that plays the wedding march when lid is opened. This de luxe chest has a lift-out tray, provided for taking the silver service right to the table.







VERTICAL CHESTS—a departure from traditional flat ones—because of convenience are winning many new friends this year for International Sterling. They are styled to go both with modern and with traditional furniture.

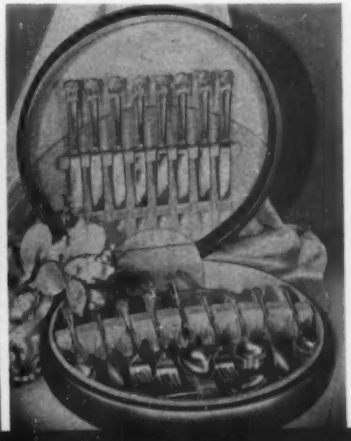


The whole promotion is presented to International Silver Co. dealers in a 24-page brochure describing advantages and giving complete information for preparing the mailing list to graduates, copy suggestions for mailings with pattern folders, advertising and radio publicity, window and counter displays—all developed around the promotion of the clever transparent gift package.

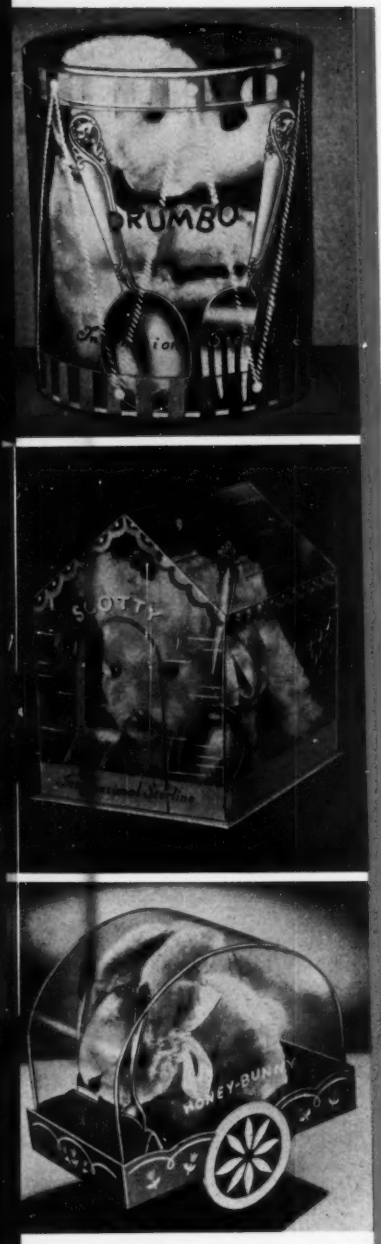
For many years International has been wooing the public to its products through improved styling of silver chests offered with sets of International Sterling, as well as with various lines of its silverplate—1847 Rogers Bros., Holmes & Edwards and Wm. Rogers & Son.

Chests are continually being planned to complement current home decor and to provide greater convenience. This has often meant radical departures from tradition. For example, this year's news is the vertical chest with cabinet-style doors, planned as a more convenient storage unit for silver in modern dining rooms. Publicized widely in company advertising and radio, the new design has caught hold in a few months, the company says.

Another striking example of package styling in keeping with trends in modern living was the ivory chest of colorful Pennsylvania Dutch decor introduced as a tie-in with the Holmes & Edwards "Spring Garden" pattern a year or so ago. A consumer study revealed that many women who live in small homes and apartments without dining rooms store their silver-



A DOUBLE-RING chest is made to resemble two wedding bands. Used as a promotion for 1847 Rogers Bros., it has two linked rings forming box handle.



BABY SETS of International Sterling, gift packaged in transparent boxes together with soft toys, are a tremendous advantage, beside competitors, to attract the shopper. Each contains a sterling baby fork and spoon. The company now uses three of these packages as shown above.

ware in kitchens—thus a reason for departure from a wood-finished chest to one of ivory finish to match kitchen colors and a floral design that tied in appropriately with the Spring Garden pattern.

This company also knows how to make good use of the novelty appeal of a package for a special promotion. A chest that had wide acceptance last year as a bridal promotion was one for a set of 1847 Rogers Bros., called "The Double Ring Chest." It was circular in shape and each half —top and bottom—resembled a golden wedding band. Two metal wedding bands linked together formed a handle to open the chest. Rims of the box were made of wood, gold sprayed. The top was white moiré taffeta, decorated with ribbons and flowers to represent a bride's bouquet.

Most luxurious of all the company's special package promotions was the "Bride's Memory Chest" for International Sterling, bound like a wedding book in white leatherette and containing a Swiss music-box mechanism that played the Lohengrin Wedding March when opened. This de luxe chest held a 52-piece service for eight in most patterns, or a 26-piece service for four. A practical lift-out tray was provided for taking the silver to the table. Such elegance and originality in packaging made many new friends for International Sterling.

Novelty packaging is also creating an enviable volume in the sale of International Sterling baby sets. It provides a very adroit sales stratagem. These baby sets—fork and spoon—are packaged in three styles, each including a cuddly soft animal toy along with the sterling silver in a gaily designed acetate box. By this packaging procedure the dealer is provided with a $5-unit sale in most patterns in place of a $3.20 one—the retail price of the sterling baby fork and spoon when sold without the toy package. At the same time International has the added advantage of a premium put-up in a transparent box to attract the shopper.

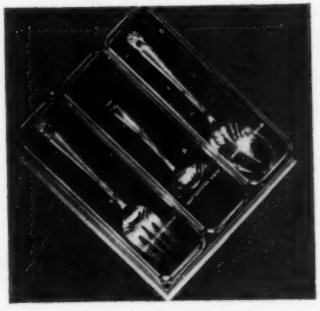
Two styles of the baby packages introduced last year are still going strong. One is a round transparent box printed to look like a drum, called "Drumbo," which contains a soft gray elephant with the spoon and fork. The other package is a transparent dog house for "Scotty," a little plush dog, to which the fork and spoon are tied with ribbon bows and are clearly visible through the container. The success of "Drumbo" and "Scotty" inspired the company to add a third baby-set package to the line this year containing, with the sterling silver, a fuzzy rabbit, called "Honey Bunny," in a transparent box made to look like a miniature wagon.

Merchandising methods in the silver industry have been further influenced by International Silver Co.'s adoption of transparent polystyrene containers for gift and display packaging of individual gravy ladles, serving spoons and meat forks.

Today these rectangular plastic containers molded in two sections with rounded corners have become a familiar sight on silver-dealer counters, containing a wide variety of individual flatware items which the retailer can display and the customer can see. Combinations of two or three items may be assembled as units in paperboard trays designed for a multiple-unit sale.

The packaging makes the products more attractive, provides the dealer with a definite selling tool and the shopper with a silverware gift in an attractive setting.

POLYSTYRENE gift containers for individual pieces of flatware offer dealers striking new display aids and protect silver.



CREDITS: *Transparent tube package for gift teaspoon, "Drumbo," "Scotty" and "Honey Bunny" containers, Shaw-Randall Co., Inc., Pawtucket, R. I., using Eastman Kodak Co.'s Kodapak cellulose acetate. Vertical chests, The Pilliod Cabinet Co., Swanton, Ohio. Bride's Memory Chest, Camille Co., Inc., Brooklyn, N. Y.; tray, The Pilliod Cabinet Co. Polystyrene containers, F. J. Kirk Molding Co., Inc., Clinton, Mass., using polystyrene supplied by The Dow Chemical Co., Bakelite Corp. and Monsanto Chemical Co.*

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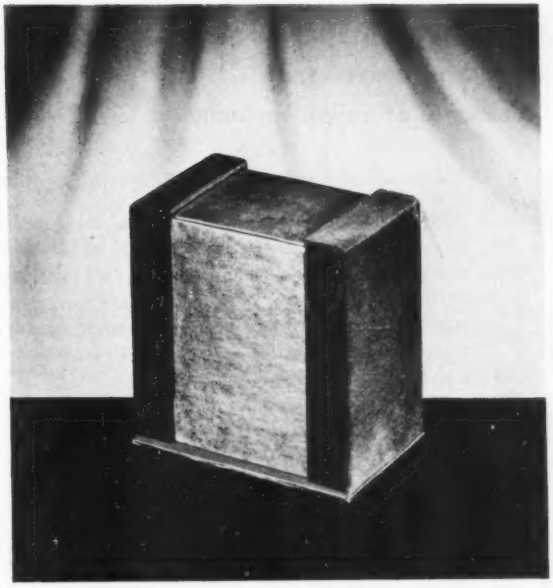

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Trace metals in food packaging

MINUTE AMOUNTS IN PACKAGING MATERIALS ARE FOUND TO ACCELERATE DETERIORATION OF PRODUCT, DIRECTLY OR INDIRECTLY.

By J. B. Thompson and R. B. Kocher*

Small amounts of certain metals will readily accelerate undesirable changes in foods. Food processors are well aware of this and exert considerable and, in some cases, elaborate effort to control the concentration of such deleterious metals as may enter into their product through raw materials, processing equipment or product concentration.

Investigators have made excellent progress toward learning the conditions whereby traces of metals adversely influence the odor, flavor and general stability of foods. As a result of these investigations food processors are aware of at least the implications of "too much copper" or "too much iron" or the very serious toxicological implications of "too much lead" or "too much arsenic."

An often overlooked source of difficulty lies in the packaging material itself. The present trend of packaging foods in flexible packaging materials has brought to the fore an entirely new problem involving traces of metals. This problem is made no easier considering that only meager information is available on the effect on foods of traces of metals contained in this type of packaging material.

During the past few years there have been remarkable advances in the packaging of foods. The packaging field has done an excellent job in developing new and improved materials possessing vastly superior physical characteristics (WVT, etc.).

* Both of Trace Metal Research Laboratory, Inc., Chicago.

This progress has been keyed to meet the particular requirements of specific classes of commodities. In fact, such excellent progress has been made that many of the lesser problems, heretofore considered of minor importance, have achieved positions of considerable significance. The role played by small amounts of metals contained in the packaging material is a good example of one of these lesser problems mounting in importance.

Characteristic reactions

To understand the problems involved, a few brief statements regarding the activity of specific metals in promoting deterioration in foods will be necessary.

It is generally conceded that copper and iron are foremost among the trace metals in promoting off flavors, odors and colors in foods. However, the manner in which they bring about these undesirable changes has remained obscure. In the case of fatty foods they accelerate oxidation of the fat, with the ultimate development of rancidity. In this capacity they undoubtedly function as oxygen-transport mechanisms. Recently, however, it has been demonstrated that copper will enter a definite pattern of reactions (4).[1] These reactions involve a complexing of the metal with proteins, followed by a reaction of the

[1] Numbers in parentheses identify "References" appended.

1. EXAMPLES of advanced shortening seepage causing Army-ration biscuits to develop rancidity due to catalyzed oxidation of shortening absorbed on cartons. Traces of copper and iron found in package materials were accelerating factor. Carton illustrated at the left was held at 100 deg. F., while the carton at right was held at 70 deg. F.

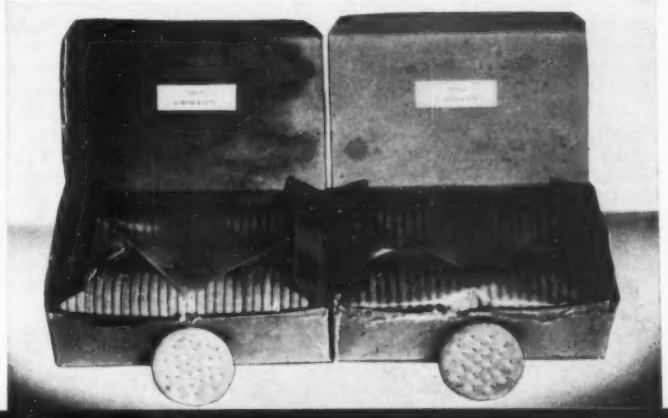
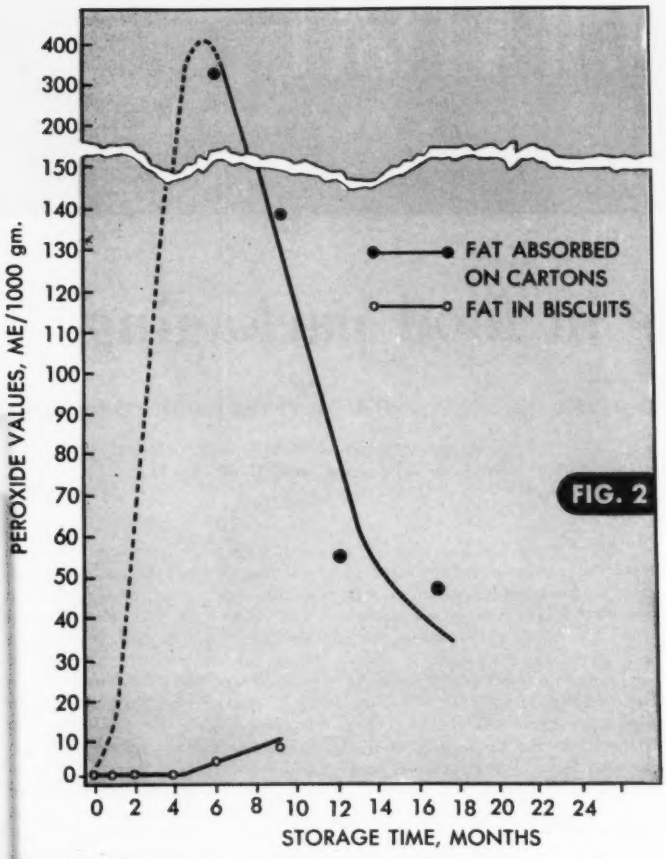


PHOTO COURTESY G. W. FOOD & CONTAINER INSTITUTE.



COMPARISON of the rates of peroxide formation in fat contained in the biscuits and the amount of fat absorbed by the carton material.

copper proteins with certain ring compounds.

Several of these complex copper-bearing substances have been isolated and studied. Work accomplished in this laboratory during the past several months has thrown additional light on this copper-protein reaction. We now know that the reaction will proceed in the presence of copper at unbelievably low concentrations; we know that the reaction, once started, proceeds rapidly and is difficult to control; we know that cobalt behaves similarly to copper. These reactions are accompanied by changes in odor and flavor and by marked changes in color. Incidentally, the reaction is not unlike some of the deteriorative enzyme reactions which occur in many processed foods.

Of the more insidious characteristics of the reaction, its ability to proceed as a result of a highly localized metal contamination appears foremost. In short, it may well start on the surface of a food when that food is contained in a metal-contaminated flexible packaging material. As yet we have investigated only the activity of copper and cobalt and cannot comment on the behavior of other metals in this reaction.

Another type of trace-metal-catalyzed deterioration that is definitely involved in the packaging of fatty foods in flexible packaging materials is an indirect type of deterioration which does not actually involve the food. In this case some of the fat is absorbed by the packaging material; the absorbed fat is oxidized on the package and the resulting volatile rancid odors are transferred to the food. This food may be entirely free of rancidity, yet it possesses an "apparent rancidity" which is highly objectionable. Metals in such a packaging material will accelerate the development of rancidity far beyond that which would normally result from the increased exposure area of the fat when it becomes absorbed by the packaging material.

Quartermaster experience

A prime example of this type of deterioration was thoroughly investigated by the Quartermaster Food and Container Institute for the Armed Forces during and immediately following the late war. Although results of the study have been published (1, 3), it was impossible to devote adequate space to each phase of the multiple investigation and, since it is an ideal example of the problem under discussion, a more detailed accounting of this one part on trace metals in flexible packaging material is in order.

One of the phases involved the commercial production of Army-ration biscuits and the packaging of the biscuits in regulation cartons according to Quartermaster Corps specifications (2). The packaging material consisted of a folding boxboard carton faced on both sides with news or manila, the boxboard being not more than 0.024 in. thick. The carton was heavily treated with sodium silicate on the inner surface. The inner wrap for the biscuits was unbleached glassine having a turpentine test of not less than 200 seconds. The separators for the biscuits were of unbleached sulfite stock. The cartons were overwrapped with two sealed wax wrappers. This type of packaging may be considered as falling into the general category of "good commercial practice."

Cartons of the biscuits (see Fig. 1) were placed in storage at both 70 deg. F. and 100 deg. F. and withdrawn at scheduled intervals for examination. Samples examined after one month at 100 deg. F. were found to be in rancid condition. At the end of two months they were extremely rancid. Yet none of the usual chemical tests when applied to the fat extracted from the biscuits gave any indication of fat oxidation. Furthermore, this rancidity or, rather, "apparent rancidity," disappeared upon aeration in open containers after a few days. In fact, consumer-acceptance tests rated the thoroughly

aerated biscuits acceptable even though they were rancid when opened. Even the samples stored at 70 deg. F. developed this "apparent rancidity" prior to the second month.

At the end of the first examination period (one month) a slight oil soaking was observed on the cartons. This became more pronounced with time. Examination of the fat extracted from the oil-soaked portions of the cartons revealed that it was in an advanced state of oxidation, as indicated by the peroxide value. Unfortunately, no tests of this nature were made on the cartons prior to the sixth-month examination. However, tests run following the sixth-month examination showed that the peroxide value was decreasing with storage time. Since this is the usual pattern of the peroxide-value curve (3), it immediately became apparent that this value was receding from a maximum.

Beyond any reasonable doubt, the fat absorbed on the cartons had been in a highly rancid state prior to the sixth-month period. The fat extracted from the biscuits showed zero peroxide values through the first four months and then slowly increased in a normal manner. Quite obviously, the "apparent rancidity" was not due to the oxidation of the fat contained in the biscuits, but was due to the oxidation of the fat absorbed by the cartons, with resulting volatile rancid odors diffusing into the biscuits and rendering them highly objectionable until they were submitted to a prolonged aeration period.

The accompanying graph illustrates the change in peroxide values of both fat extracted from the biscuits and fat extracted from the carton. Since these values were not determined on fat extracted from the cartons prior to the sixth-month examination, the rise to a maximum—or, for that matter, the maximum itself—can only be estimated (broken line). However, the rapid rise indicated is not out of line, since the rancid condition was strongly evident at the one-month (first) examination period.

The difference in the rate of oxidation of the fat in the biscuits and the fat absorbed on the cartons may be explained as the combined effect of metal catalysis along with a vastly increased surface area. An indication of the catalytic effect of copper and iron in accelerating oxidation in this case can be had by comparing copper and iron data in Table I.

TABLE I—AVERAGE COPPER AND IRON CONTENTS OF BISCUITS AND PACKAGING MATERIALS

	Copper, p.p.m.	*Iron, p.p.m.*
Biscuits	4	13
Glassine inner liners	15	16
Bleached sulfite separators	12	65
Cartons	60	735

No noticeable organoleptic rancidity was observed in the glassine liners at the ninth-month examination. Unfortunately, the chemical tests could not be made on this material because of inadequate sample size. However, a peroxide value of 60 was obtained on fat extracted from the separators at the end of nine months. Reference to the graph will show that the peroxide value of the fat absorbed by the cartons had already reached a maximum and was receding, while that of the fat remaining in the biscuits was still quite low.

Thus it is indicated that the poor storage life of Army-ration biscuits packaged in boxboard cartons was primarily due to the nature of the packaging material. Beyond reasonable doubt, the high concentration of copper and iron was not a small factor in hastening the deterioration. As a result of this study the Quartermaster Food and Container Institute for the Armed Forces is very much interested in an improved flexible package for Army-ration biscuits. The metal content of such packaging becomes particularly significant in view of the findings just outlined.

Dairy-industry experience

Earlier in this article it was mentioned that food processors and, in some cases, large-scale consumers are becoming increasingly aware of the deleterious effect of traces of metals. The dairy industry in particular is trace-metal conscious. A review of the dairy-chemistry literature during the last few years reveals innumerable references to the effects of certain of the metals.

Recognition of the importance of controlling these metals is reflected in at least two instances by Quartermaster Corps specifications for milk products. Premium-grade powdered whole milk procured by the Army must not contain in excess of 1.5 p.p.m. of copper or 10 p.p.m. of iron; anhydrous milk fat must not contain more than 0.25 p.p.m. of copper.

Shortening and margarine producers are concerned with keeping the copper, iron and nickel contents of their products at low levels.

In many instances producers of foods susceptible to metal-catalyzed deterioration have gone to considerable expense in replacing existing equipment in order to meet the low metal-concentration requirements. All too frequently the packaging materials in which some of these products are contained possess metals in relatively high concentrations.

In at least one instance it has been reported that such a packaging procedure can lead to an inferior product (5). In this case certain surface defects of print butter have been related to parchment wrappers. It has been established that the iron content of the parchment wrapper can have a direct bearing on the development of oxidized and tallowy flavors on the surface of the butter. Thirty p.p.m. of iron in the parchment appears to be the critical level at which oxidation is induced. Iron contents in excess of 40 p.p.m. can result in the development of a definitely tallowy flavor on the surface of the butter.

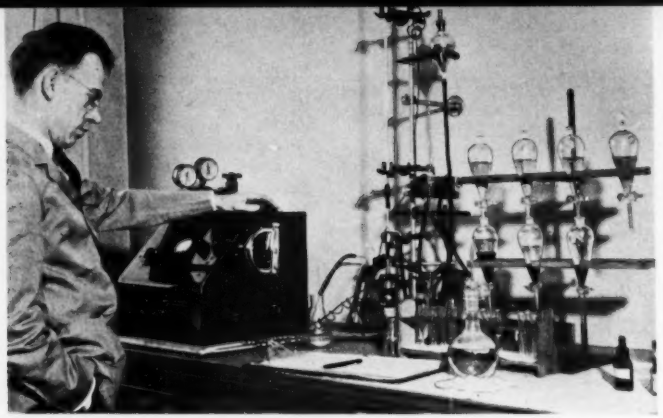
Trace-metal findings

Relatively few analyses of flexible packaging materials for their trace-metal contents have been reported. However, during the past two years this laboratory has had occasion to examine several samples of various sheet-plastic materials, glassine, parchment (printed and plain) and carton stock for several of the metals.

Carton stock varies considerably. It is not unusual to find copper and iron concentrations as high as 80 p.p.m. and 800 p.p.m., respectively. As would be expected, the carton stock generally runs much higher than the other types. That made from reworked materials will invariably run very high in metals.

Plastics, glassines and parchments do not run as high in metals as many of the carton stocks. In Table II are presented concentration ranges of six metals from a random selection of these materials (carton stocks excepted).

On the basis of presently available information, the only statement that can be made relative to the trace-metal contents of the various packaging materials is that the metals are present in many of these materials in alarming concentrations. Unquestionably, various foods are more



3. POLAROGRAPHIC EXAMINATION of flexible packaging materials for trace-metal contents is shown being conducted by Author Thompson.

susceptible to trace-metal-catalyzed deteriorations than others.

TABLE II—CONCENTRATION RANGES OF SIX METALS (From a random selection of sheet plastics, glassines and parchments—plain and printed)

Metal	*Concentration, p.p.m.* *Low*	*High*
Iron	10	500
Copper	3	20
Cobalt	..	4
Lead	2	14
Manganese	3	21
Zinc	7	23

High-protein foods are particularly susceptible to the copper-protein reactions mentioned earlier in this article. Proteins are avaricious "copper grabbers."[2] A high-protein food in contact with a packaging material containing copper could very well develop a surface defect involving the copper-protein reaction mentioned earlier.

Other metals may well exert deteriorative changes in a similar fashion to copper. Cobalt, for example, appears to react almost exactly like copper. Possibly in certain instances cobalt in a packaging material could be responsible for a surface defect in a food; yet it might be overlooked because the low concentration of this metal in the food itself would render it almost undetectable.

As mentioned earlier, the importance of iron in butter wrappers has been well established.

Printing inks can be a source of difficulty. Occasionally a printing ink may have a high metal content. Some of these inks have been known to contain as much as 0.5% of iron. A low-iron-content parchment on which a high-iron-content ink has been used becomes a source of trouble. Other metals used as a basis for pigmentation may have a detrimental action if present in sufficiently high concentration. Fortunately, most of the inks employ non-metal organic types of pigments and do not offer this problem.

Without much-needed additional data it is impossible to set forth any specifications applicable to the concentrations of metals which can be tolerated in the various types of packaging. Different foods offer different problems. Not only the food itself, but also the time, temperature and humidity of storage affect susceptibility to metal-catalyzed surface defects.

Conclusion

The trace-metal content of packaging materials having been identified as an important factor in accelerating deterioration in certain foods, it would appear advisable that the suppliers of the packaging materials and the food processors conduct a joint survey on the trace-metal content of flexible packaging materials. These data, once obtained, must be correlated, along with data on other chemical and physical properties, with data on the shelf life and acceptability of individual food products, particularly those in which difficulties have been experienced.

At the present time the problem is too new and too generalized to permit immediate steps to be taken to effect an over-all understanding of the implications involved. Yet, it is a problem which has to be faced squarely by both the packaging and the food industries. A survey of this scope will offer the food processor the opportunity to select a packaging material suitable to his particular requirements. Furthermore, it will offer the manufacturer of the packaging material the opportunity of setting up specifications designed for the packaging of a specific food product. Until this information becomes available, it would be too much to expect the supplier of the packaging material to take steps to reduce the metal content of his products to a safe level.

In her own right, Mrs. Average Housewife has become an expert in food acceptance. She is aware of the decreasing dollar value and she has become adept at getting the most and the best that a dollar will buy. Although she does not concern herself with the chemical and physical properties of this or that packaging material, she does concern herself with the quality of the packaged food and is acutely aware of the effect of waste on her budget. She is the one who will decide what packaged foods will be in demand and she will base her decision on quality dollar value. The food processor and the supplier of packaging material who cooperate to meet the housewife's demands will see an ever-increasing number of their products going into the consumer's shopping bag.

Acknowledgment

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[2] A solution of casein or albumin at neutral pH and room temperature will complex copper to the extent of 10 to 12 mg. of copper/gram of protein (dry weight) when in contact with a small amount of insoluble copper oxide in a matter of a few hours (4).

Rodent repellency*

STUDIES IDENTIFY CHEMICAL AND PHYSICAL DETERRENTS THAT MAY BE EFFECTIVELY USED IN PACKAGING MATERIALS.

By James B. DeWitt,† Jack F. Welch† and E. Bellack†

Many types of packaged goods, especially foods and feeding stuffs, are susceptible to damage from attacks by micro-organisms, insects and rodents. Much of the resulting economic loss may be prevented by the incorporation of suitable fungistatic or bacteriostatic substances in the packaged articles or in the walls of the container. Insect damage may be prevented or minimized by the inclusion of repellent or toxic substances in the packaging materials, but efforts to produce rodent-resistant containers have met with relatively slight success.

The reasons for the comparative ineffectiveness of measures to prevent rodent damage are obvious. Fungi or bacteria growing upon a package may derive their essential nutrients from the cellulosic materials, adhesives or other organic constituents. Insects, in eating or burrowing through package walls, ingest or come into intimate contact with any repellent or toxic material incorporated in the package walls. On the other hand, the mode of attack employed by rats and other rodents is mechanical in that the animals are capable of gnawing through common packaging materials without ingesting appreciable quantities of the excised particles, or even allowing them to come in contact with the soft tissues of the mouth. For this reason the incorporation of toxicants in package walls is ineffective in preventing rodent damage and the only apparent means of protection consists of the use of packaging materials impervious to gnawing attacks.

The need for such protective materials is generally recognized. It has been estimated that the annual economic loss due to rats and other rodents may amount to between one and two billion dollars. Part of this loss is due to damage to crops, poultry and small animals; part is due to damage to buildings and equipment, and a considerable portion results from destruction of, damage to or contamination of packaged goods while in transit or storage. Some warehousemen have estimated that such damage to stored foods and merchandise may amount to as much as 20% of their total value.

The most satisfactory method for the prevention of these losses would be the elimination of the rodent population through extermination campaigns and by use of rodent-proof construction. The importance of these measures cannot be minimized and every effort should be made to increase their application. However, such methods may not be completely successful in all cases and may be impossible or impractical to carry out in the vicinity of temporary storage dumps or the wharf areas of large ports. The supplementation of these procedures by the use of rodent-resistant packages would be of material advantage in reducing the economic loss due to rodent depredations.

Unfortunately, such rodent-resistant packages have not been available. It would be impractical to use glass or metal containers for all packaging requirements and difficulty has been experienced in finding suitable substances for increasing the rodent resistance of other packaging materials. The requirements for such substances are quite rigid and may be summarized as follows:

1. They must be non-toxic, or be capable of application in such manner that their use does not involve hazards to personnel handling the packages or contamination of contents.

2. They should not be skin irritants under the conditions of use.

3. They should not have adverse effects upon the bacteriostatic and fungistatic properties of the packaging material, nor upon other qualifications such as strength, resiliency and durability.

4. They should be free of objectionable odors or tastes under the conditions of use.

5. They should be capable of application under conditions usually encountered in the manufacture of packaging materials.

6. Their efficacy should not be impaired under normal conditions of handling, shipping or storage.

Since no material meeting these requirements had been described in the literature and since there was very little information available on the types of substances which might be suitable protectants against rodent damage, it was necessary for any program involving a search for such materials to be quite comprehensive. As carried out by the Fish and Wildlife Service, the test program involves three distinct phases designed to: (1) screen large numbers of samples with a view to eliminating inactive substances and obtaining information on the possible correlation between chemical composition and repellent activity, (2) conduct laboratory tests to determine the efficacy of repellent materials in preventing rodent attacks when applied to test panels of paperboard and (3) conduct tests under carefully controlled conditions simulating those encountered in commercial warehouses in order to determine the degree of protection afforded by these materials to test cartons.

Methods for measuring repellency

Conventional bio-assay procedures in which the toxicity of a compound is measured by the quantity required to produce a certain percentage of kills in the experimental animals or in which the nutritional or therapeutic properties of a sample are measured by the growth rate or the alleviation of pathological symptoms were not suitable for determining the extent to which rats might tend to avoid a test material. New assay techniques or modifications of existing techniques developed for this purpose have been

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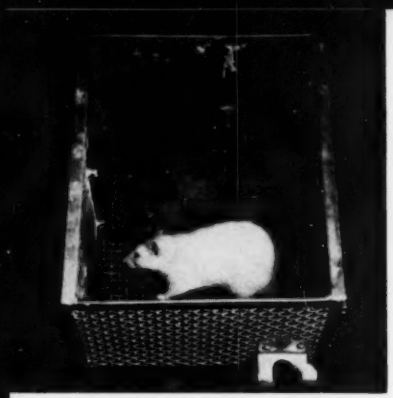


TESTING CAGE, showing installation of treated and untreated paper barriers that the rat penetrates to obtain food.

described in detail elsewhere (1, 2, 3)[1] and are summarized here.

The test compound was mixed with ground laboratory diet to form 2% of the total weight of material. Individually caged laboratory rats were given two food cups, one containing 20 grams of this treated diet and the other containing 20 grams of similar untreated food. Food consumption was determined daily during the four-day test period and the efficacy (repellent activity) of the test compound was expressed numerically according to the formula:

$$\text{Repellency } (K) = 100 - \frac{1}{100W} \times (8T_1 + 4T_2 + 2T_3 + T_4)(U_1 + U_2 + 2U_3 + 4U_4 + 8X),$$

where $T_1 \ldots T_4$ represent the consumption (in grams) of the treated food on the respective days of the test, $U_1 \ldots U_4$ represent the daily consumption of the untreated food, W is the body weight (in kilograms) of the test animals and X represents the weight of untreated food remaining at the end of the test. The calculation of K was based on the assumptions that, in the absence of repellent activity, all food would be consumed by the end of the third day and that any abnormality in rate of food consumption or differentials in the rates of acceptance of treated and untreated foods would be due to the effects of the test compound. The weighting coefficients were selected arbitrarily to emphasize differences in consumption rates. On the basis of results of several hundred assays, it was decided that only materials with repellency indices above 85 would be classed as sufficiently promising to warrant further investigation. Such promising materials were rescreened at levels of 2%, 1% and 0.5% of the diet. If K values above 85 were obtained in all of these tests, the compound was subjected to barrier trials as described in the following section.

Barrier tests: The food-acceptance tests furnished evidence that rats would refuse to ingest food containing certain materials, but they did not establish that these materials would prevent the rat from gnawing through treated papers. Also, they did not offer a measure of the effectiveness of materials which altered such physical characteristics as the resistance to tearing or the hardness, grittiness or tackiness of the surface of the paper. Information on these points was obtained in a second phase of the test program.

The test material was applied to a test panel of a laminate composed of five or more plies of 16-lb. kraft paper and a latex adhesive. The test panels were inserted between specially trained and motivated laboratory rats and their food supply, and the time required by the animals to gnaw through the panels was compared with that required for the penetration of similar untreated panels.

Field and warehouse tests: The final step in the evaluation of test compounds selected by the first two test procedures consisted of the exposure of treated cartons to wild rats under conditions approximating those in commercial warehouses. The treated cartons were partially filled with food, sealed with sodium silicate and placed in a small, specially fitted building containing a colony of wild rats. Efforts were made to duplicate the conditions which might be found in commercial warehouses and records were kept of the animal concentrations and of the time elapsing before the test cartons were damaged. As in the barrier tests, the differential in penetration times for treated and untreated materials constituted a measure of the degree of protection afforded by the test compound.

Types of materials increasing rodent resistance: In the absence of information on the types of materials or on the chemical composition of substances which might be repellent to rats, it would be necessary to test all available materials on a trial-and-error basis. However, if it could be shown that repellency is associated with certain classes of compounds or with specific functional groups, the search could be intensified to include only these promising classes. At the start of these studies, compounds were chosen at random from the list of materials coming into the hands of the researchers. After several-hundred compounds had been tested theories were formed on the relationship of chemical structure and a greater degree of selection was employed. It was assumed that chemicals of an inert nature and ready volatility were valueless, while materials known to possess fungicidal and bactericidal properties were considered worthy of investigation. As a further step, compounds were classified according to their characteristic functional groups in order to determine whether repellent activity is associated with specific structures, such as $-COOH$, NH_2, $-OH$ and $-SH$. Although the sampling may not be representative in some cases, it may be seen from the data in Table I that few acids, alcohols, amides, etc., were repellent and the average repellency index for these classes is quite low. On the other hand, a relatively high proportion of the amines, amidines, nitroso compounds and heterocyclic materials containing nitrogen were repellent and the average index is relatively high. Since polyfunctional compounds were not included in this table, it may be assumed that repellency is associated with specific functional groups and that these groups contain nitrogen, sulfur or both.

Since the repellency indices represent the aversion of the rat to the ingestion of these compounds, it may be questioned whether they furnish an index to the possible activity of chemicals in preventing gnawing attacks in which the animals do not ingest the excised materials. Tests were conducted in which compounds with different repellency indices were tested by the barrier method. It was found that compounds having repellency indices below 80 produced an average increase of 20% in the time required for penetration of the test panels, that compounds with repellency indices between 81 and 90 produced an average increase of 440% and that compounds with indices between 91 and 100 produced an average increase of 600%. The parallelism between the results of the two procedures is not exact, but it appears that the repellency index offers a clue

[1] Numbers in parentheses identify "References" appended.

TABLE I—CORRELATION BETWEEN RODENT REPELLENCY AND CHEMICAL COMPOSITION

Class of compound	No. tested	No. repellent	Repellency indices		
			Max.	Min.	Av.
Acetals	4	0	76	41	64
Acid halides and anhydrides	11	1	86	−74	15
Acids and salts	55	0	83	−83	34
Alcohols	6	0	53	−90	1
Aldehydes	10	0	81	25	55
Amides	43	2	90	−81	24
Amidines and guanidines	31	8	94	−94	55
Amines and salts	216	77	100	−102	72
Azo and diazo compounds	6	1	91	43	58
Esters	30	1	92	−130	4
Halogenated hydrocarbons	35	3	94	−131	16
Heterocyclic compounds containing N	64	21	97	−68	74
Hydrazines and derivatives	10	1	86	−275	11
Hydrocarbons	15	0	69	−182	3
Hydroxylamines	7	2	95	17	59
Imides	15	3	96	−52	35
Imines	13	1	88	−136	10
Ketones	10	1	89	−10	53
Nitriles	8	0	79	−66	42
Nitro compounds	88	15	100	−143	43
Nitroso compounds	11	4	97	47	71
Phenols	24	6	97	−51	54
Quinones	6	0	82	−119	−14
Mercaptans, thiophenols	15	0	71	3	52
Thioureas	37	8	95	−66	38
Sulfides and disulfides	6	0	66	−144	−20
Sulfones and sulfoxides	9	0	74	−17	34
Thiuram mono- and disulfides	7	1	90	−48	49
Thiocyanates and isothiocyanates	9	3	100	−67	40
Sulfonic acids and derivatives	24	0	83	−81	44
Dithiocarbamates	29	2	99	−104	28

to the possible efficacy of a compound as a protectant against gnawing.

Since the number of compounds (2,500) screened by these procedures is relatively small and since the tests so far conducted have not established that any of these compounds will offer the optimum degree of protection against gnawing attacks, it appears probable that other compounds with equal or greater effectiveness may be found. The results of tests on various compounds may be used to predict both structure and composition of such compounds. It has been found that variations in molecular weight, in unsaturation and in the nature and location of substituent groups will affect the repellent activity.

Effects of variations in molecular weights: The most satisfactory procedure to determine the effects of variation in molecular weight is to examine members of a homologous series, such as the aliphatic amines. Since many of the lower members of this series were too volatile for testing, it was necessary to form more stable derivatives. Repellency indices of some salts are shown in Table II.

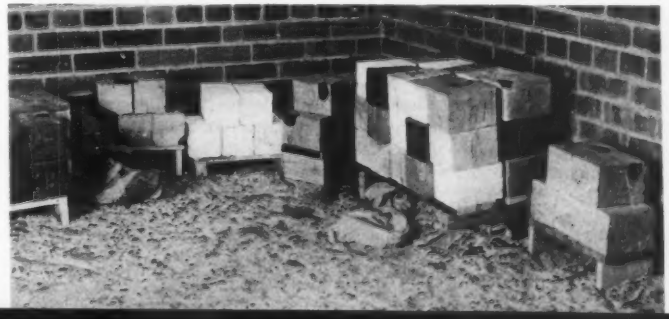
It is apparent that the repellent activity of the $-NH_2$ is affected by the molecular weight of the aliphatic chain and that the activity reaches a maximum somewhere in the vicinity of dodecylamine. In this connection it should be noted that almost any salt of dodecylamine showed promise, while the acetates, picrates and hydrochlorides of other amines were more active than salts of other acids. A few salts with propionic acid were found to be more active than the corresponding acetates, but the scarcity of samples did not permit conclusions on the relative activity of these two acids. Direct comparison of primary, secondary and tertiary amines is not possible, since relatively few secondary and tertiary compounds were tested. However, it appears that salts of dimethylamine have about the same activity as those of ethylamine and that diamylamine and tributylamine salts are about equal to those of decyl and dodecyl amines.

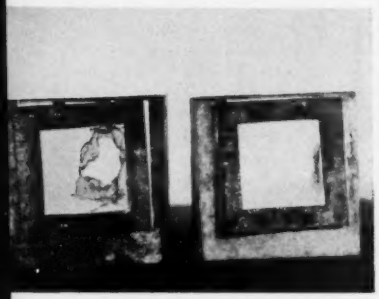
More direct evidence of the importance of the 12-carton chain is found in data on quaternary ammonium and pyridinium compounds. In general, such quaternaries gave values approximating the empirical level for promising repellents, with pyridinium compounds showing slightly higher activity than the corresponding ammonium compounds. With pyridin-

TABLE II—EFFECT OF VARIATION IN MOLECULAR WEIGHT UPON REPELLENCY

Amine	Repellency indices of salts		
	Acetate	Hydrochloride	Picrate
Methylamine	0	..	89
Ethylamine	4	33	82
Isopropylamine	38	65	..
n-Propylamine	27	36	90
Butylamine	..	..	82
Amylamine	8	23	..
Heptylamine	..	..	84
Octylamine	..	..	92
Decylamine	46	89	93
Dodecylamine	91	99	88
Hexadecylamine	93	90	86
Octadecylamine	78	76	79
Dimethylamine	9	..	80
Diethylamine	..	..	86
Dipropylamine	..	..	87
Diamylamine	84	75	81
Trimethylamine	..	39	97
Triethylamine	..	40	83
Tributylamine	..	..	89
Triamylamine	..	..	81

EXPOSURE STATION, showing typical rodent damage to test cartons.





COMPARISON of resistance to rodent attack of treated and untreated packaging materials. Untreated VIS board (left) was destroyed in 43 minutes; similar panel (right) treated with a chemical repellent was damaged slightly after 6-hrs. exposure.

ium alkyl bromides, the repellency indices of the various alkyl groups were: hexyl–77; octyl–89; decyl–76; dodecyl–96; tetradecyl–87; hexadecyl –83. Here, too, the greatest activity occurs with a 12-carbon alkyl group.

Some cyclic compounds appear more active than aliphatic materials of equal molecular weight. Thus, the activity of *p*-toluidine was about equal to that of dodecylamine and was much higher than that of heptylamine.

Effect of unsaturation: The introduction of an ethylenic linkage adjacent to the active functional group produces a significant increase in repellent activity. This is brought out by comparison of salts of propylamine and allylamine. The repellency indices of propylamine salts were: acetate–27, hydrochloride–36, picrate–90, while those for allylamine derivatives were: acetate–95, picrate–99. Isopropylamine derivatives were more active than salts of *n*-propylamine, but were less active than the allylamine compounds.

Effect of substituent groups: The introduction of a second $-NH_2$ group appears to produce a slight increase in the activity of aliphatic compounds. Thus, the repellency of ethylamine acetate was 4, while that of ethylene diamine diacetate was 35. Hydroxy, nitro or carboxy groups reduce the activity of the basic amino group.

With disubstituted cyclic compounds the position of the second group has marked effects upon repellent activity. Para-toluidine is more active than the ortho or meta isomers; para-nitroaniline, para-phenetidine and *p*-nitrophenol are more repellent than the ortho isomers. Maximum activity in the amino phenols and anisidines is found in the ortho isomers, while the meta isomers of phenylenediamine and chlorophenol are more active than the ortho and para compounds.

Other factors affecting repellency: Although very few insect repellents have shown repellency to rodents, a number of fungicides have shown considerable degrees of activity. The list of fungistatic materials which have appeared repellent includes a number of quaternary ammonium, pyridinium and nicotinium salts, substituted phenols and complexes containing mercury, copper, cobalt and zinc ions. It may be concluded that fungistatic activity furnishes a rough index to repellency to rodents.

These results indicated that certain types or classes of chemical compounds were highly repellent to rats under prescribed conditions and that this repellent activity might be utilized to prevent gnawing attacks upon paperboard, etc. It has been found, however, that the concentration per unit surface area and the method of inclusion exert marked effects on the efficacy of these materials. Much additional research will be necessary before it can be stated that these materials prevent or produce a significant reduction in damage.

Some materials, such as plastics, waxes or drying oils, are not repellent to rats and are readily accepted when incorporated in food. However, these materials may alter the physical properties of paper by increasing the hardness or toughness, or by imparting grittiness or tackiness to the surface and thereby increase resistance to gnawing attacks.

Experiments with such "physical deterrents" have not been as extensive as those with "chemical repellents" because of the apparent advantage of using the latter in packaging material. Physical-type deterrents have the disadvantage of adding weight and being useful only in rigid-type packaging materials. They are, however, for the most part odorless and non-toxic–properties which are particularly desirable in food containers–and some also may retard moisture penetration under humid conditions.

Nearly 100 tests have been conducted with these materials. Since evaluation was not possible by the food-acceptance technique, direct application was made to barriers and boxes. Examples of materials affording physical resistance when applied to paper are sodium silicate, certain plastics such as Lucite, drying oils such as processed tung oil and non-drying synthetic resins. The effectiveness of these depends largely on the concentration employed. In these tests a concentration of one gram per square inch of barrier surface was effective.

As with chemical repellents, the practical limits of employing materials of this type in packaging as rat deterrents is yet to be determined.

Summary

In the course of studies involving more than 2,500 chemical repellents, it has been found that certain groups of compounds containing nitrogen or sulfur are repellent to rats under the test conditions and it appears probable that some of these compounds might be used for the protection of packaged goods against rodent attacks. Additional tests to determine optimum methods of application will be necessary before final evaluation of these compounds will be possible and extensive field trials will be required to establish the degree of protection which may be afforded by the use of these materials. Pending such final evaluation, it may be assumed that the results to date offer a means of selecting the most promising types of materials for further trial.

On the basis of the test data, it appears that some amine derivative, such as a salt of some organic acid, or a complex with trinitrobenzene or with a metallic salt of a dialkyl dithiocarbamic acid might offer promise of protection of packaging materials against rodent attacks.

Protection might be obtained through the use of certain "physical deterrents" such as plastics, waxes or drying oils.

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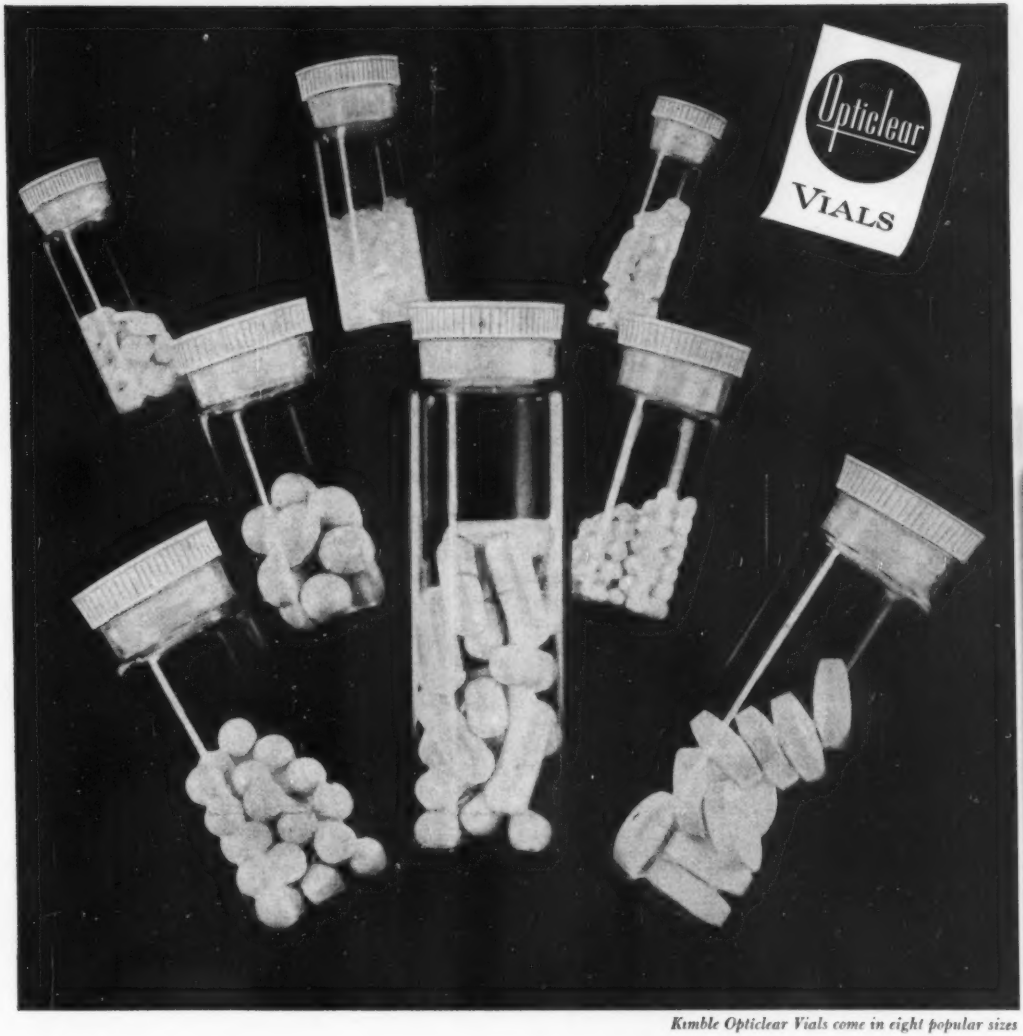

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Q & A

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Heat sealing of fabrics

QUESTION: We wonder if we could find a way of coating silk, satin or rayon fabrics on one side with some substances which would make them heat sealing. What we want is to use heated dies to apply these treated fabrics to other materials by means of pressure and heat. It is required, however, that the top surface not be affected or soiled by the treatments.

ANSWER: There are a great many coating formulations which can be applied to cloth to meet your requirements for heat sealing to other materials. The problem is one of selecting a proper lacquer or coating formulation which does not stain or discolor the cloth, to apply it in such a way that it does not unduly penetrate the cloth and to remove the solvents. It is also necessary to select a coating which has proper heat-sealing characteristics so that the temperature of the sealing plates does not have to be excessively high to avoid scorching or discoloring the fabric.

Consideration must also be given to the amount of material which is to be applied, since coarse, rough fabrics might require sizing or pre-coating before applying the heat-sealing coating. Also, difficulties would be encountered if the fabric is extremely porous or absorbent to the wet coating. There should be no serious problem in performing the heat-sealing operation provided the sealing plates are clean, the material is smooth and the temperatures are controlled. If necessary, the surfaces of the sealing plates can be covered with a material such as Teflon to prevent sticking, although this should not be necessary for most materials.

You should consult with one of the companies listed under the heading, "Custom Finishing & Coating" in the Buyer's Directory of the *Modern Packaging Encyclopedia*. Some of the companies listed will have had experience in the coating of cloth and can very quickly give you an idea of cost and, perhaps, supply you with samples that are comparable with your own fabrics.

Obtaining specifications

QUESTION: We are anxious to secure copies of Federal specifications for the packaging of dehydrated foods and other similar matters. We would appreciate it if you could tell us how these can be secured.

ANSWER: Inquiries frequently are made at MODERN PACKAGING on how to obtain Federal specifications and we believe information on this subject will be helpful to many readers. The Food & Container Institute, Quartermaster Depot, 1849 W. Pershing Rd., Chicago 9, Ill., is responsible for Federal specifications concerning food products and their packaging. This organization can tell you which specifications are available and how to secure copies of them.

If you are interested in getting a variety of other Government specifications, you should have a copy of the Index of Federal Specifications, which is available through the Superintendent of Documents' office in Washington, D. C. This index contains a listing by title and source of all Federal specifications, whether they be for the packaging of food or any other items.

Tackiness of inks and coatings

QUESTION: We have a packaging machine which makes and fills printed cellophane envelopes. This machine normally functions very well, but on certain days we have the inconvenience of having the ink and the coating of the cellophane soften and stick on the heat-sealing jaws. This interferes with the operation of the machine and results in the production of unattractive packages. Can you give us any suggestions for curing this difficulty?

ANSWER: Your problem of the sticking of the ink and coating on the heat-sealing jaws may be due to excessive moisture in the cellophane on days of high humidity, or from variations on the voltage supplying the heating current, or from erratic or sensitive thermostat operation.

Lack of cleanliness of the sealing jaws could cause this difficulty, but that would, of course, be obvious.

It is also assumed that there are no variations in the printing ink used or other variables, such as several sources of supply, etc.

If the cause is excessive moisture pick-up by the cellophane in humid atmospheres, then the printed cellophane should be kept in cool storage, in moistureproof wrappers, or in storage which has controlled temperature for humidity.

Variations in the voltage or in thermostat operation can be checked by a volt meter and a sensitive indicating thermometer attached so as to read the temperature near the surface of the sealing jaws. A more-sensitive thermostat and a voltage-control means to balance power input with demand would also benefit.

You might obtain some relief by taking the jaws off, cleaning and polishing them well and obtaining a quantity of "mold-release compounds," which the operators should apply in a thin film a few times during the operating day. These "mold-release compounds" are available from different sources, the most commonly used being some of the silicones. The proper use of these compounds should help in preventing the attachment of ink and coatings to the heated metal of the sealing jaws.

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2. FEATURES PREMIUM OFFER

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IN THREE IMPORTANT WAYS, Du Pont "Cel-O-Seal" cellulose bands add selling zest to Barrington Hall Instant Coffee.

When you plan your point-of-sale merchandising, consider "Cel-O-Seal." It enables you to relate your package to your current advertising theme or promotion. Indelibly printed on a colorful "Cel-O-Seal" band, your sales message stands out at point of sale. And Du Pont "Cel-O-Seal" protects against evaporation, contamination and tampering... assures the shopper that quality is protected.

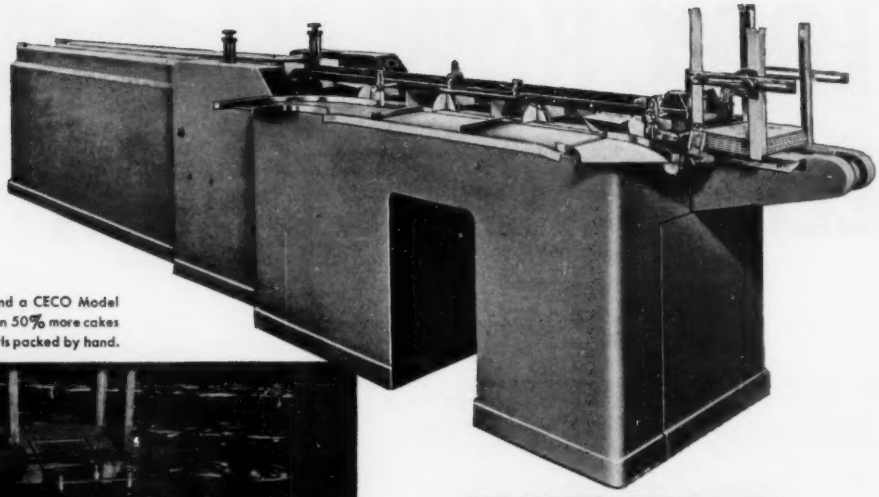
Let us help you design a distinctive, sales-building seal for your product. Write "Cel-O-Seal" Division, E. I. du Pont de Nemours & Co. (Inc.), 2522-A Nemours Bldg., Wilmington 98, Del. "Cel-O-Seal" bands are also sold by Armstrong Cork Co., Lancaster, Penna., and I. F. Schnier Co., San Francisco, Calif.

DU PONT "CEL-O-SEAL" BANDS

DU PONT

REG. U. S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING . . . *THROUGH CHEMISTRY*



★Three girls and a CECO Model 40 now carton 50% more cakes than eight girls packed by hand.

CECO

REG. U. S. PAT. OFF.

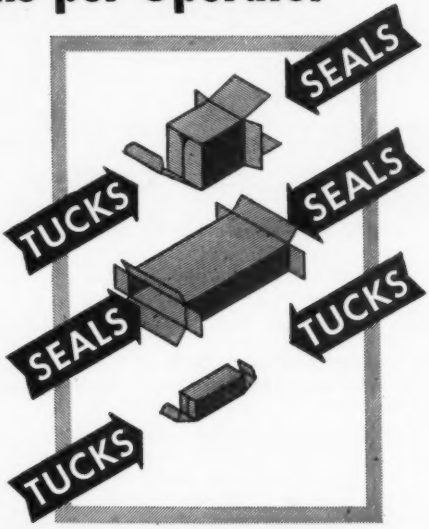
Model 40 CARTONER

Produces 400% More Cartons per Operator

Labor costs were cut nearly two-thirds while production was increased over 50% when Rice's Bakery in Baltimore installed a CECO Model 40 Cartoner for packing pies and layer cakes. This machine not only lowered packaging costs materially, but also improved package appearance.

CECO Model 40 is readily adjustable for a wide range of carton sizes by unskilled help without special tools. Cartons may either be tucked in or glue sealed, or both. All operations are automatic except product insertion. The machine is ideal for packing unit items like baked goods, machine parts, bottles, and bagged products at speeds adjustable from 1200 to 3600 per hour.

A CECO Model 40 Cartoner will pay back its surprisingly low initial cost within a year out of savings in labor alone. Records prove it. Do yourself a favor and send for details today.



CONTAINER EQUIPMENT CORPORATION

MEMBER, PACKAGING MACHINERY MANUFACTURERS INSTITUTE

214 Riverside Avenue **Newark 4, N. J.**

BALTIMORE • CHICAGO • JACKSON • PITTSBURGH • ROCHESTER
ST. LOUIS • SAN FRANCISCO • SAVANNAH • TORONTO

ship corrosive liquids in tin?

yes! safer... better... cheaper

in containers lined with

VISQUEEN* film!

How General Electric cuts shipping costs by as much as one-third. Each quart makes a gallon of X-Ray chemicals.

Liquid corrosives have always called for glass shipping containers. But glass breaks. Containers are bulky, heavy—costly to ship.

Metal cans, pails or drums wouldn't work with these "hot" liquids—until they hit on the idea of lining the containers with tough, chemically inert VISQUEEN film. "They", in this case, were Edwal Laboratories, General Electric X-Ray Corporation, and The Visking Corporation. The products:—photographic and X-Ray chemicals.

Assisting at the birth of the revolutionary new package were the Traver Corp., fabricator of the VISQUEEN film bags; and the Crown Can Co., source of the cans and sealing equipment.

Results? The new packaging cuts 33⅓% off the weight of each unit. Saves 25% in package size. And saves up to 35% in shipping costs. Being unbreakable, the new package can be shipped by low-cost parcel post.

This new method of shipping may save *your* firm thousands of dollars. Get all the facts now!

From 4 oz. to 55 gallons! That's the size range of VISQUEEN film-lined containers used by the Edwal Laboratories, Ringwood, Ill., for their special X-Ray super-fast developer.

VISQUEEN* FILM A PRODUCT OF

THE VISKING CORPORATION

PRESTON DIVISION • TERRE HAUTE, INDIANA

*T. M. The Visking Corporation

MAIL COUPON FOR FACTS!

The Visking Corporation
Preston Division, Box R-1410, Terre Haute, Ind.

Send us more detailed information on new method of shipping liquid corrosives.

Name.....

Company.....

Title.....

Address.....

City..... Zone.... State.....

PRINT *and* PROTECT *your* PACKAGES

WITH

Remember—printing ink can be your best salesman

Every good manufacturer, with justifiable pride of craftsmanship, believes that his product is the best that research, skill and modern production facilities can turn out. But, without proper packaging, without suitable display-design and choice of colors that are crisp and clean, the sale of the finest commodity may be retarded. Protect your investment as well as your package by selecting the printing ink that meets your particular requirements.

There are special inks for printing on cartons, wrappers, boxes, bags, cans, collapsible tubes and sundry other items used in the packaging field.

Check the inks listed below and note the variety available for different packaging techniques:—

HYDRY — moisture-setting ink developed especially for food cartons and labels.

HARD-TEX — for lithographic application to cans, collapsible tubes and metal containers.

SILVERSHEEN and GOLDSHEEN — produce effects simulating metal surfaces, such as aluminum, copper, bronze and silver.

GLOSTONE and SUveneer — especially suitable for labels, wrappers and cartons likely to be subjected to considerable handling.

ANILINE and ROTOGRAVURE inks for long-run printing of labels, bread wrappers, cellophane bags, foil wraps, etc.

TEXTILE inks for printing on fabric bags used in shipping sugar, flour, cement, and other loose products.

Let us help you with that package-printing problem. Our office nearest you is at your service for complete information on ink and color.

GENERAL PRINTING INK COMPANY DIVISION
10th STREET & 44th AVENUE • LONG ISLAND CITY 1, N. Y.

OFFICES IN PRINCIPAL CITIES

GEO. H. MORRILL CO. • SIGMUND ULLMAN COMPANY • FUCHS & LANG MANUFACTURING COMPANY
EAGLE PRINTING INK COMPANY • AMERICAN PRINTING INK COMPANY • E. J. KELLY COMPANY
GENERAL PRINTING INK CORPORATION OF CANADA LIMITED

No ERMOLD AUTOMATIC MULTIPLE LABELER need be obsolete until it's worn out

In the past three years new improvements have been developed for Ermold Automatic Multiple Labelers. These improvements have been designed for two important reasons—(1) to insure more attractive, more accurate labeling (2) to reduce overall labeling costs.

All of these improvements are part and parcel of the new Improved Ermold Automatic Multiple Labeler. They can be incorporated in most older models.

Your Ermold representative can readily tell you whether it is more practical to *improve* your present equipment or *replace* it.

TYPICAL ERMOLD IMPROVEMENTS

FOR CLEAN, SPARKLING LABELING

Adjustable Glue Transfer Roller Cam — insures accurate timing during application of glue to label pickers...eliminates excess glue on pickers.

Full Wrap-Around Foil Wiping—Powered brush wipers give a positive sealed overlap on neck foil... clean and free from excess glue.

FOR NEAT, STRAIGHT LABELING

New Pusher Forks — designed to hold the bottle more firmly while label is being pressed against the bottle.

New Pusher Guide Tracks — prevent tilting of bottles while labels are being applied...also insure accuracy of label placement, particularly neck labels.

Sight, Gravity Feed Oilers—keep pusher chains lubricated at all times, preventing wear and consequent looseness while label is being applied.

FOR ECONOMICAL OPERATION AND MAINTENANCE

Mechanical Variable Speed Drive—allows instant changes in machine speeds to match changes in speed of line.

Push Button Stop and Start Control System — provides quicker stopping and starting than a mechanical clutch...ideal for connection to other remote control switches located at stations remote from labeler.

New Timer Wheel — cuts minutes from time needed for changeover from one bottle size to another.

ERMOLD LABELERS

EDWARD ERMOLD COMPANY
652 HUDSON ST., NEW YORK 14, N. Y.
FOUNDED 1880 INCORPORATED 1911

70 Years of Labeling Leadership

LET AN ERMOLD REPRESENTATIVE analyze your particular situation. He'll tell you whether it is more profitable for you to purchase a new Improved Ermold Labeler or to incorporate some or all of the improvements in your present Ermolds. Just fill in the coupon and mail it today. This analysis involves no obligation.

New!
ERMOLD
AUTOMATIC
UNPACKER
Have You Seen It?

EDWARD ERMOLD COMPANY, 652 Hudson Street, New York 14, N. Y.

Gentlemen: I am interested in the technical improvements available for Ermold Labelers. Please have your representative make an analysis of our equipment without obligation.

NAME_____ POSITION_____

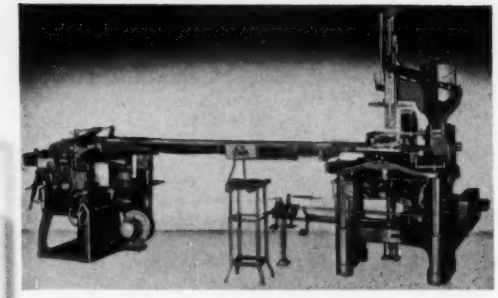
COMPANY_____

ADDRESS_____

Equipment and Materials

AUTOMATIC BOX-MAKING MACHINE

A new paper box-making machine said to be capable of producing up to 40 finished boxes per minute, either tight-wrapped or extension-edge types, named the "Stokesfeed," is being produced by Stokes & Smith Co., subsidiary of Food Machinery &



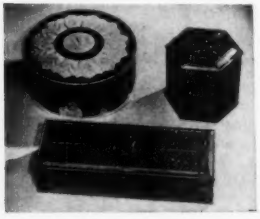
Chemical Corp., 4900 Summerdale Ave., Philadelphia. The new unit consists of the wrapping machine with an automatic feed (Model "HS") and an automatic gluing machine (Model 405) with a special registering conveyor. The box wraps are fed, glued and delivered on the conveyor of the first unit automatically so that all the operator does is spot the stayed box blank on the wrap as it passes on its way to the wrapping section. The new machine is adjustable to a wide range of sizes, according to the company.

ALUMINUM BEER BARREL

A heavier-gauge aluminum beer barrel, 31-gal. capacity is in production, according to Aluminum Co. of America, Pittsburgh, Pa. A deeper chime is provided to withstand rough handling better. Inner surfaces of the new full barrels consist of high-purity aluminum bonded to a high-strength, heat-treated Alclad aluminum alloy exterior. Bungs are forged from a solid piece of aluminum and attached by the argon arc-welding process, said to eliminate completely concealed joints and overlapping welds. The intended result is simplified barrel cleaning and protected taste, color and clarity of contents.

DECORATIVE RE-USE CONTAINERS

The line of "Guildcraft" decorative re-use containers for gift packaging, made by Frederick A. Krause & Associates, Frenchtown, N. J., now includes a wide selection of boxes and canisters in many shapes and sizes, both metal containers with embossed coverings and light-weight composition containers fabricated of heavy-gauge foils laminated to fibreboard which have metal tops, bottoms and edges. Many in the latter group are made using the company's special reverse-engraving process. The company also reports that is has developed a special method of laying color over embossed surfaces which gives additional eye appeal to the designs.

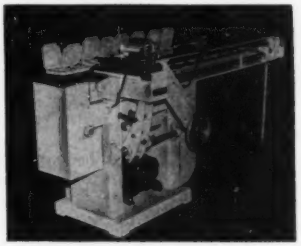


NEW METHOD OF SEALING POLYETHYLENE

A means of continuously sealing polyethylene film by the use of Teflon in a new application has been developed by the Technical Service Section of E. I. du Pont de Nemours & Co.'s Cellophane Division, Wilmington, Del. The development makes use of specially prepared finishes containing fine particles of material in resin form as a coating for a rotary sealing wheel that, it is said, can be mounted in the conventional position on a standard heat-sealing bag machine. Cotton tape and sheet Teflon cover the forming plate at the point of contact with the sealing wheel. The recommended pressure of the wheel against the forming plate is approximately 1¼ lbs. With this method it has been found possible to seal polyethylene in tubular form at speeds ranging from a few feet per minute up to 100 ft. per minute. At a speed of 65 ft. per minute, it was possible to make satisfactory seals of 2-mil film at temperatures ranging from 350 to 450 deg. F., according to reports.

TINS CARTONING MACHINE

The Lakso Co., Inc., Fitchburg, Mass., offers a special cartoning machine that fills a paper carton with flat tins such as are used for aspirin tablets, etc., automatically at the rate of 36 cartons per minute. The filled tins come to the machine in three lines and are placed in two layers of six each just before they are transferred to the carton. Cartons are loaded on a conveyor traveling parallel with the tins conveyor and at the point where the tins are placed in a double layer, they are pushed into the carton. The carton then continues to travel on its own conveyor until it is stripped off by the table. Present machines handle a single size of open carton, but it is reported by the company that adaptations can be made to handle cartons that are filled from the side at the same speed. Two operators are required, one to load the empty cartons and the other to close the filled cartons.



SAUSAGE-CASING TUBING AVAILABLE

Increased production facilities now permit distribution of "Cry-O-Rap" seamless tubing to selected converters for printing the tubing, widely used for sausage casings, according to Dewey & Almy Chemical Co., Cambridge, Mass., manufacturers of the tubing. The company will continue to sell bags and casing direct to packers and through jobbers to locker plants, it is reported.

THERMOPLASTIC LABEL FOR BAKERY PRODUCTS

A thermoplastic adhesive, designed for use on label stock for bakery products particularly, has been developed by Nashua Gummed & Coated Paper Co., Nashua, N. H. Designated as "Pervenac-CL," the adhesive will be carried in stock in Nashua's C1S Litho and Kromekote papers as well as on super-calendered stock (in minimum orders of 10,000 lbs.). Papers with

Your product—or Ours—

there is no endorsement like a REPEAT ORDER!

We are proud of this list of some of the "BLUE BOOK" manufacturers of cartoned products who have repeatedly purchased

JONES CARTONERS

and in many cases are using dozens of these machines.

ABBOTT LABORATORIES
AMERICAN CRAYON COMPANY
AMERICAN SAFETY RAZOR CORP.
ANGIER CHEMICAL COMPANY
ANSCO, DIVISION OF GENERAL ANILINE & FILM CORPORATION
AVON ALLIED PRODUCTS INC.
WALTER BAKER CHOCOLATE & COCOA DIV., GENERAL FOODS CORPORATION
THE BARBASOL COMPANY
THE BAYER COMPANY DIVISION OF STERLING DRUG INC.
THE BEST FOODS, INC.
BLOCK DRUG COMPANY
BRILLO MANUFACTURING COMPANY, INC.
BRISTOL-MYERS COMPANY
THE BUNTING CHEMICAL COMPANY
JOSEPH H. BURNETT DIVISION, AMERICAN HOME FOODS, INC.
THE CENTAUR-CALDWELL DIVISION OF STERLING DRUG INC.
CAMPANA CORPORATION
THE CARTER'S INK COMPANY
CHAMBERLAIN SALES CORPORATION
CHESEBROUGH MANUFACTURING CO.
COLGATE-PALMOLIVE-PEET COMPANY
CONRAD RAZOR BLADE CO., INC.
COREGA CHEMICAL COMPANY
CRESCENT MFG. CO.
E. C. DE WITT & CO., INC.
E. I. DU PONT DE NEMOURS & CO., INC.
EX-LAX, INC.
FRANK H. FLEER CORPORATION
C. B. FLEET CO., INC.
THOS. T. FRENCH COMPANY
GILLETTE SAFETY RAZOR COMPANY
H. CLAY GLOVER CO., INC.
GRIFFIN MANUFACTURING CO., INC.
HENRY HEIDE INCORPORATED
THE CHARLES E. HIRES CO.
HUDSON PULP & PAPER CORP.
IODENT CHEMICAL COMPANY, INC.
JOHNSON & JOHNSON
KERR'S BUTTER SCOTCH, INC.
THE KILGORE MANUFACTURING CO.
KIMBERLY-CLARK CORPORATION
LAMBERT PHARMACAL COMPANY
LEHN & FINK PRODUCTS CORPORATION
ELI LILLY & COMPANY
P. LORILLARD COMPANY, INCORPORATED
MANHATTAN SOAP COMPANY, INC.
THE B. MANISCHEWITZ COMPANY
THE W. H. MARVIN COMPANY
McCORMICK & COMPANY
McKESSON & ROBBINS INCORPORATED
THE MENNEN COMPANY
MENLEY & JAMES, LIMITED
THE MENTHOLATUM COMPANY, INC.
MERCK & COMPANY, INC.
MILES LABORATORIES, INC.
THE JOHN MUELLER LICORICE COMPANY
THE MUSTEROLE COMPANY
NATIONAL BISCUIT COMPANY
NATIONAL TOILET COMPANY
NEWSKIN COMPANY
NEW ENGLAND CONFECTIONERY CO.
THE NORWICH PHARMACAL COMPANY
O-CEDAR CORPORATION
PARKE, DAVIS & COMPANY
PEPSODENT, DIVISION OF LEVER BROTHERS COMPANY
PERFECTION STOVE COMPANY
PERSONAL PRODUCTS CORP.
PLOUGH, INC.
J. L. PRESCOTT CO.
PROCTER & GAMBLE CO.
THE QUAKER OATS COMPANY
SCHENLEY DISTILLERS, INC.
A. SCHILLING & COMPANY
SEECK & KADE, INC.
SHARP & DOHME, INCORPORATED
E. R. SQUIBB & SONS
ESSO STANDARD OIL COMPANY
HOLLYWOOD-STARS, INC.
THE UPJOHN COMPANY
VICK CHEMICAL COMPANY
L. E. WATERMAN COMPANY
WEST DISINFECTING COMPANY
WESTERN CARTRIDGE COMPANY
WHITE LABORATORIES, INC.
WHITEHALL PHARMACAL COMPANY
WILBERT PRODUCTS CO., INC.
WYETH, INCORPORATED

The eminence and notable success of these concerns, and the wide variety of their cartoned products, suggests the wisdom of bringing your cartoning problems to Jones.

JONES Constant Motion CARTONERS
FULLY AUTOMATIC

Feed and open cartons; insert single or multiple loads; glue or tuck flaps of cartons – airplane or reverse tuck. Fold and insert leaflets, booklets, corrugated liners; print or stencil code; are convertible to different sizes of cartons and loads.

JONES "CMV" CARTONERS

Feed and open cartons – reverse, straight or airplane type; tuck bottom flaps; carry cartons upright in *constant motion* past loading stations for manual insertion of load; tuck top flaps. Quickly adjustable to any size carton from 3¼" x 3¼" x 8" to ¾" x ½" x 2½".

P. O. BOX 2055
CINCINNATI, OHIO

R. A. & COMPANY, INC.

Equipment and Materials
Continued

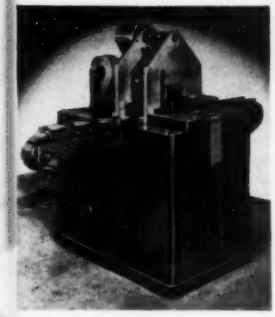
the new adhesive are reported to handle equally well on three of the most widely used cake-labeling machines, either single phase heat-and-pressure type or with the delayed-action type of application. The company has published a bulletin on the development giving result data of laboratory tests where these heat-sealing papers were compared with other thermoplastic paper on the market. These tests indicate that final adherence is superior at conditions from 34 to 100 deg. F. and from 20 to 80% relative humidity. It is also reported that these papers may be used with the temperature in the activating head 100 deg. F. below that required for competitive labels.

EXTRA-STURDY PAPERBOARD TRAYS

Design features of the new "Tripl-Tite" trays, made by Standard Folding Trays Corp., 419 Johnson Ave., Brooklyn, N. Y., are said to eliminate bottom and side buckling trouble which

cause jam-ups of the trays as they move through cellophane wrapping machines. The trays, used primarily for pre-packaging fresh produce such as tomatoes, have double reinforced bottoms and triple-thick ends to provide additional rigidity. They can be erected by hand or machine and, according to the company, one operator is able to set up 60 per minute, while a machine does approximately 100 per minute.

AUTOMATIC DISK-CUTTING AND PLACING MACHINE



The Carroll Engineering Co., Westminster, Md., announces its new Model 113 automatic disk-cutting and placing machine, said to offer economy on long or short runs. Range of sizes for diameters and heights is $^3/_8$ to 6 in. The machine has vari-speed drive, operates at speeds of 60 to 120 containers a minute and handles materials such as paper, foil, plastic and metal, according to the manufacturer. Model 114 of this machine permits embossing of the disks with trade names, etc.

MEASURING DEVICE FOR ATTACHED DRY FILMS

A new method of measuring attached dry films and thin sheet metals, foils, paper or plastic, which is claimed to be highly accurate, has been developed by Maynard R. Euverard of Interchemical Corp., New York. By means of an optical attachment to the Interchemical direct-reading thickness gauge, made by Henry A. Gardner Laboratory, Inc., 4723 Elm St., Bethesda, Md., and a new suitable light source, the attached dry films can be measured visually. The film is stripped at two points about $^1/_2$-in. apart and the two outside gauge wheels rest on these stripped areas. The gauge is then rotated until its eccentric center wheel touches the film. A light source (placed behind the gauge) permits the observer to check the point at which the center wheel meets the film and cuts off the light. The direction of gauge rotation can be reversed and the average of two readings used for greater accuracy, it is reported. The attachment is also available from the Henry A. Gardner Laboratory, Inc.

POLYETHYLENE SUPPLIER

A new source of supply of polyethylene film, sheeting and seamless flat tubing is the Fibron Div., Irvington Varnish & Insulator Co., Irvington, N. J., which announces commercial production of the material in a wide range of widths and thicknesses. The company will market the polyethylene under the name "Ivithene."

PACKAGE HUMIDITY INDICATORS

A simple way of determining whether a package has been subjected to dangerously high humidity, through the use of a small card treated with a special moisture-absorbing agent, has been developed by the Humidial Co., 864 Edgehill, Colton, Calif. The cards can be inserted in a container at the time of packing and have no hard particles or dust that might cause damage to the packaged articles or instruments. On the face of each card there are six small spots which change color at different degrees of humidity. The range, as calibrated in steps of 10%, goes from 20 to 70% R. H. The reading is made at a point where one spot is pink and the next one is blue. It is reported that an observer can read a correct humidity from the card within a 5% accuracy with little practice. The cards are available either plain or with eyelets and plastic coverings. Cost of the plain card is 5 cents apiece.

CARRY-HOME BAG FOR COLD FOODS

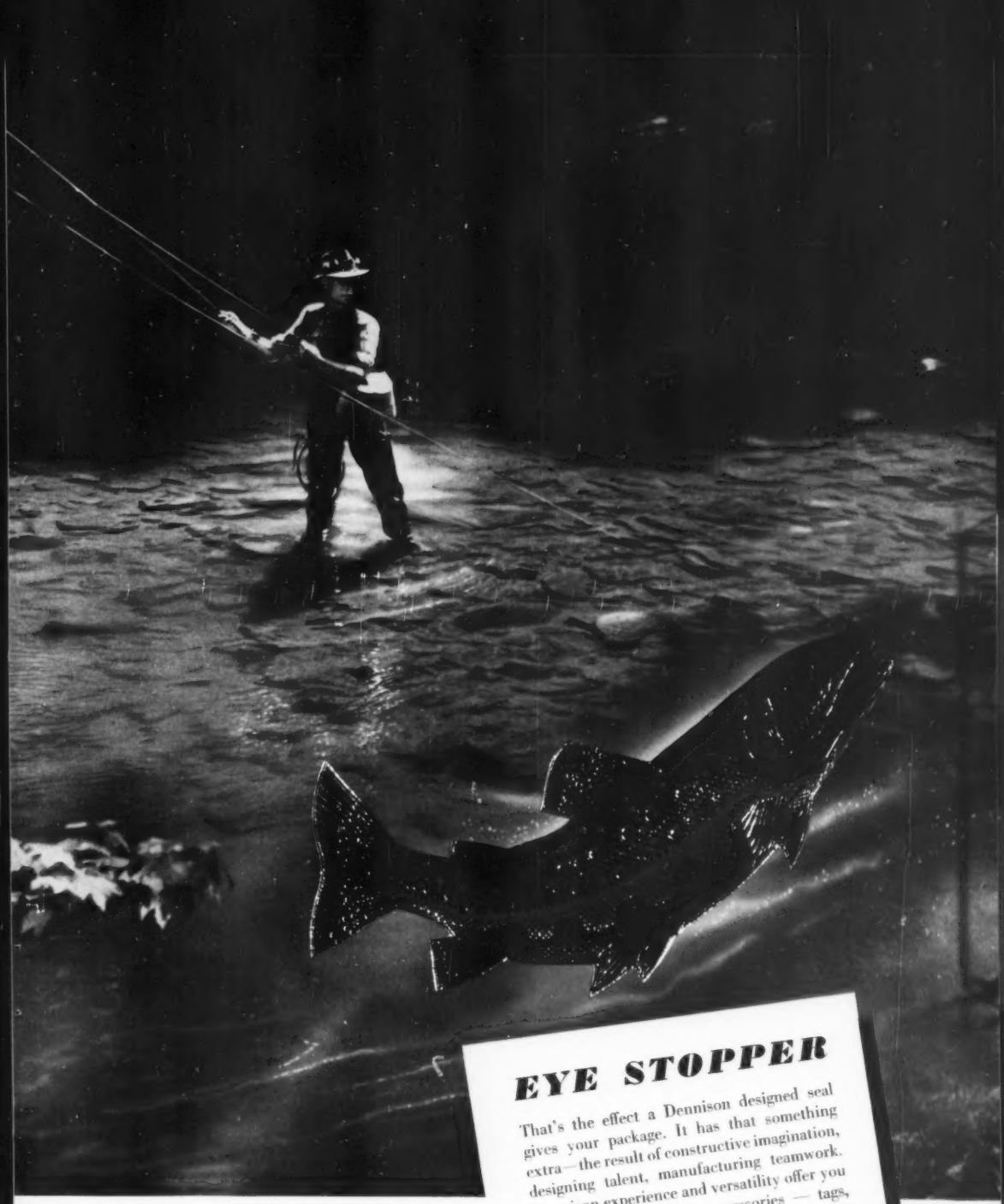
High insulating characteristics are claimed for the new duplex Sta-Kold Bag developed by Union Bag & Paper Corp., 233 Broadway, New York. The bag is made of 40-lb. white kraft with 90-lb. duplex asphalt lining for insulation and has moistureproof adhesive on all seams. Designed as an "over-the-counter" retail package for frozen food, ice cream and similar products, the bag is offered in sizes to accommodate pint, quart and two quart sizes. A gusset adds capacity and aids filling.

LOW-COST, STURDY STITCHED BOX DEVELOPED

A new style of stitched box that has a number of variations in design, currently being used as a delivery box for produce, has been developed by the Gaylord Container Corp., St. Louis, Mo. Low cost, easy setting up, high stacking strength and versatility of applications are advantages mentioned by the company. The box body, ends and lid are formed from a one-piece blank of fibreboard or corrugated. The end panels have diagonal scores (patented) which cause the blank to fold in such a way that the box is automatically self-aligning, making for quick set up, according to the company. There is a space between the double walls of the box ends into which lid flanges slide when the lid is closed that add strength and rigidity.

VACUUM METALLIZING EQUIPMENT

The F. J. Stokes Machine Co. is manufacturing equipment for metal coating plastics, crystals, glass, paper, textiles, etc., by the vacuum method. The company is able to furnish all the equipment necessary for a complete installation and its ad-



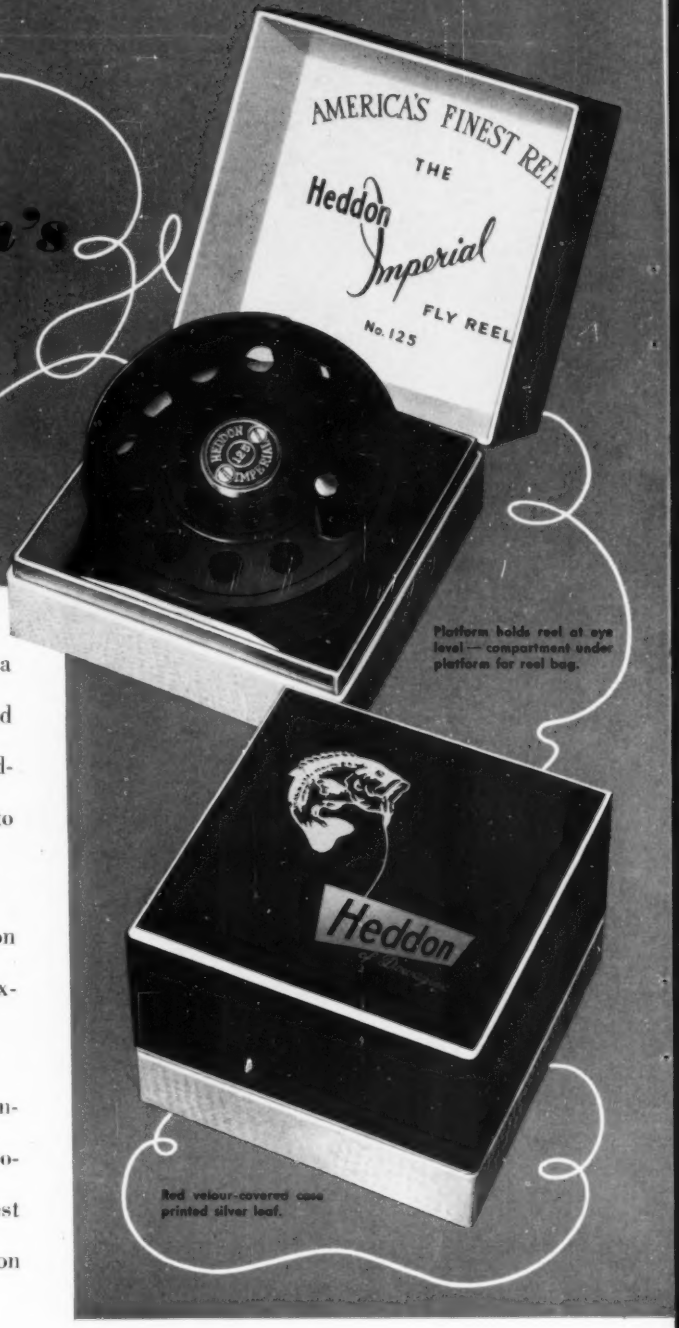
EYE STOPPER

That's the effect a Dennison designed seal gives your package. It has that something extra—the result of constructive imagination, designing talent, manufacturing teamwork. Dennison experience and versatility offer you the finest in packaging accessories — tags, seals, wraps, bands, labels, merchandise cards, set-up boxes. For samples and suggestions appropriate to your product, call nearest Dennison sales office or write Dennison Manufacturing Co., Framingham, Mass.

Dennison

PAPER PRODUCTS FOR MORE THAN A CENTURY

Fisherman's Pride



Heddon's Imperial Fly Reel is a reel that every fisherman is proud to own. It is packaged in a handsome case — Dennison Designed to step out with fine merchandise.

Dennison packaging skill is built on one hundred and six years of box-making experience.

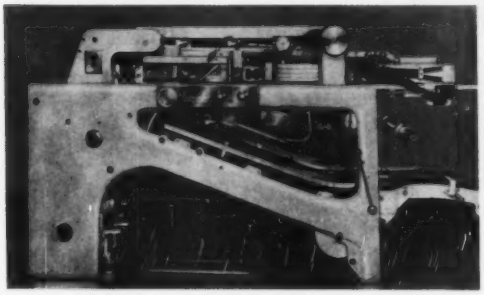
Does your product need a personalized set-up box, an unusual protective package? Call nearest Dennison office or write Dennison Box Division, Marlboro, Mass.

LOOK TO **Dennison** FOR PACKAGING THAT REFLECTS THE PERSONALITY OF YOUR PRODUCT

visory service section personnel is available for consultation, technical assistance and service in pre-treatment, coating and after-treatment of various products. Detailed information may be obtained by writing to the company, 5900 Tabor Rd., Philadelphia.

WRAPPING MACHINE FOR BAKERY PRODUCTS

The Bettendorf Co., Bettendorf, Ia., has announced the development of a new-type wrapping machine for the bakery field. The unit will handle many types of bakery products,



sliced or unsliced, plain or in trays, as well as products having irregular shape, and is easily adjustable for size variations. Operating at from 15 to 35 packages a minute, the wrapper will handle any standard wax or cellophane material. Range of web feed is from zero to 36 in. The machine is so designed that each loaf of bread or other product automatically measures its own length of paper. Article range handled by the machine is from 1 to 6 in. in height, 2 to 8 in. in width and 6 to 17 in. in length.

'CINDERELLA TUMBLERS' FOR DAIRY PRODUCTS

The Owens-Illinois Glass Co., Toledo, Ohio, is offering an eight-design sequence depicting Walt Disney's story of Cinderella, reproduced in three colors by the applied color process on Libbey Safedge glasses. In addition to a picture of Cinderella characters, each of the cottage-cheese tumblers carries a descriptive verse, also in applied color. To enable consumers to obtain the entire set of tumblers, a suggested merchandising plan prepared by Owens-Illinois calls for Cinderella-tumbler promotions to run for eight weeks, with a different story design being offered each week by dairies.

IMPORTED "MARBLE" PAPER AVAILABLE

The complete line of hand-crafted papers in authentic Italian marble reproductions, made by Antonio Pertot, are available from Artistic Products Co., 1962 Delaware Ave., Buffalo, N. Y., which is importing them from abroad. The papers, which have won many awards in Europe, are made by hand by an exclusive process which impregnates the colors into the paper. They are colorfast and washable, according to the company, and are light enough to use for either facing or lining. There are over 1,500 designs and colors to choose from in the line.

UNSCRAMBLER LINES UP SPOUT CANS

The problem of unscrambling spout cans and paneled flasks so that the spouts or panels face in the correct direction for filling and labeling has been solved by a new attachment developed

PACKAGE DECORATIONS COST LESS THAN YOU THINK

Just inquire about "Flowers by Cardinal"

It costs very little to join the parade of merchandise-wise packagers who rely on delicate-looking, colorful Flowers by Cardinal to bring customers a-running.

These exquisite little blooms are custom made in any quantity—color, size and number of blossoms in a spray to your specifications. Service is fast.

Samples and prices on request

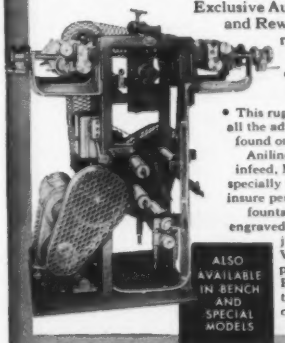
CARDINAL
FLOWER AND NOVELTY CO.
61 East 8th Street New York, N. Y.
GRamercy 3-2686

PRINTS TWO COLORS AT HIGH SPEEDS, SLITS, PERFORATES, REWINDS IN ONE OPERATION

PAMARCO AUTO PRINTER

narrow width roll to roll aniline printing press

For fine quality printing on pressure sensitive tape, paper, cellophane and silk, making labels or printing any paper up to 6" width.



Exclusive Automatic Dual Unwind and Rewind allows machine to run continuously while operator merely puts on unprinted rolls and removes printed ones.

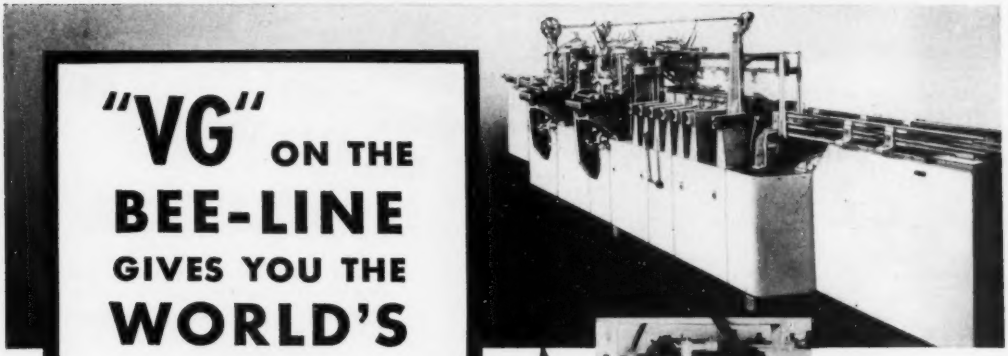
• This rugged machine incorporates all the advantages and adjustments found on the full-size PAMARCO Aniline Press. Features accurate infeed, NO-FLEX plate rolls, and specially treated impression rolls to insure perfect register. Metered ink fountains, incorporating Evenflo engraved screen rolls, supply ink in just the right amount. Variable speed motor supplied; jog control included. Parts are standard and interchangeable. Uses ¼" circular pitch gearing.

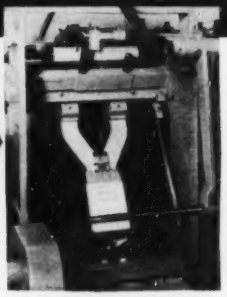
ALSO AVAILABLE IN BENCH AND SPECIAL MODELS

EVENFLO PAPER MACHINERY & RESEARCH • INC.
ROSELLE • NEW JERSEY
Builders of ANILINE PRINTING PRESSES, EVENFLO ENGRAVED ROLLERS, PAPER CONVERTING MACHINERY

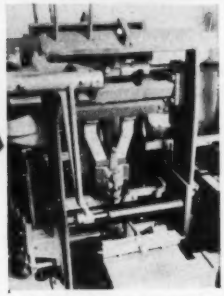
"VG" ON THE BEE-LINE GIVES YOU THE WORLD'S NEATEST SMOOTHEST MOST COMPLETE LABELING WITH *Controlled Registration*

VG is new. It's the *Vacuum Gripfinger* method engineered for the WORLD famous BEE-LINE LABELER. VG allows no label area to remain ungummed . . . spreads adhesive evenly over entire body labels, neck or shoulder labels, and medallions, too . . . and holds any or all of them firmly in position for precision-controlled register. Three pressure applications to each label assure superbly smooth, skin-tight label application at a rate up to 2 a second — and faster. Bring your labeling up to 1950 standards with the VG-equipped WORLD BEE-LINE LABELER — or by adding the VG feature to your present BEE-LINE. Write for information.

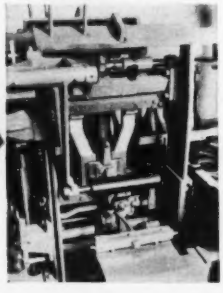




● Here are the pickers on their way down to the container, showing body and medallion labels. Gum box, label holder and transfer roll removed so you can see what happens.



● Here the Vacuum Gripfinger contacts the closed pickers, sandwiching the label. Note the bellows in the lower left hand corner. Its action produces the vacuum.



● Here at the container itself the pickers are opening for gumming the entire surface of the labels on them, coating adhesive over the label surfaces while vacuum holds the labels securely and precisely for *controlled* registration on the container.

"YOU GET THE BEST LABELERS IN THE WORLD"

ECONOMIC MACHINERY COMPANY

Builders of World Automatic and Semi-Automatic Labelers for Every Purpose

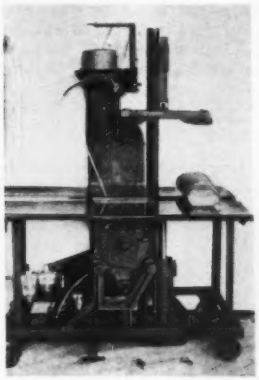
WORCESTER, MASSACHUSETTS

New York Philadelphia Pittsburgh Chicago San Francisco Los Angeles Denver Louisville Salt Lake City El Paso Seattle Portland Phoenix London Montreal Toronto Winnipeg Newfoundland Vancouver Mexico City Sydney, Australia Wellington, N. Z. San Juan, P. R. Ciudad Trujillo, D. R. Honolulu, T. H.

Equipment and Materials
Continued

by the Island Equipment Corp., 27-01 Bridge Plaza North, Long Island City, N. Y. The company has designed this attachment for unscrambling tables with an overhead, adjustable, guard-rail type of guide which enables the containers to approach the discharge V-belts for discharge in single file with the spout or panel facing the proper direction.

LAUNDRY- AND TEXTILE-BUNDLE TYER



Model SR2B tying machine, manufactured by National Bundle Tyer Co., Blissfield, Mich., ties large bundles with jute or sisal twine at any point on the bundle. Adopted to use various sizes and types of twine, the machine is equipped with automatic safety releases for protection of the machine and operator. Vital moving parts are fitted with ball, needle and graphite bronze bearings. The machine automatically adjusts itself to tie any shaped bundle from 1 to 20 in. in height, up to 30 ties per minute at standard operating speed.

IMPROVED WAX BREAD WRAPPERS

A new wax formula for bread wrappers which is said to have higher gloss that is stabilized for permanency and to provide firmer sealing, less wax rub-off, more resistance to scuffing and blocking than paraffin wax has been developed by the Marathon Corp., Menasha, Wis. The formula (patents pending) has been copyrighted under the name "Tyton" and wrappers with it are now available from the company.

PRECISION COATING AND GLUING MACHINE

Equipment adapted to the inherent peculiarities of many of the newer coating solutions and adhesives has been developed by Potdevin Machine Co., 1285 38th St., Brooklyn, N. Y., for over-all precision coating of glue, lacquer, varnish, resins, latex and other liquid solutions. The new design (Series 2R) has a slow-speed tank roller that can be driven at any one of four speeds, whichever one best suits the solution being used. The coating tank and roller remove easily for cleaning. A nonclogging regulator is said to assure the correct amount of coating for various types of work and a ductor-roller type of coating control irons out lumps in the solution. Thermostatic control is provided for regulating temperature where required. Sizes offered are 6, 9, 12 and 15 inches.

ALLYL STARCH PRICE REDUCTION

General Mills Research Laboratories, Minneapolis, Minn., announce a 25% reduction in the price of allyl starch, currently used experimentally in adhesives, printing inks and lacquer-type coatings. The company is offering a 40% solids solution of allyl starch in technical alcohol at 28.9 cents a pound and

if you are packaging in INJECTION MOLDED PLASTICS you ought to know about the eye-catching and alluring

MOTHER of PEARL EFFECTS

CREATED IN

AMPACET *Reg.

POLYSTYRENE

by American Molding Powder & Chemical Corp.

Available in a multitude of colors and shades AMPACET pearl effect Polystyrene can give YOUR package that proven shot-in-the-arm.

AMPACET — the Polystyrene to specify also for your custom-made color requirements and for any desired special effect, tinsels, metallics, iridescents, phosphorescents.

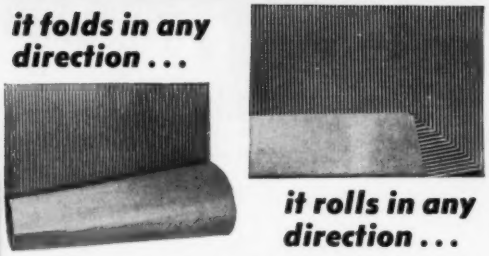
THE COST? Hardly more than run-of-the-mill standard colors.

THE RESULTS? Beautiful, sparkling boxes and containers with a new and different look.

Specify AMPACET Polystyrene or contact for further particulars and samples —

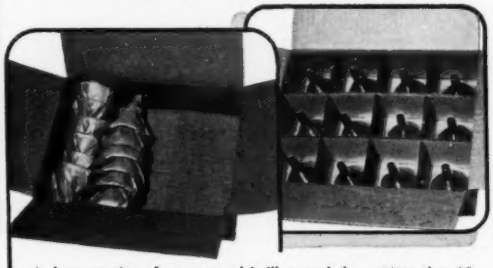
AMERICAN MOLDING POWDER and CHEMICAL CORP.

Main Office: 44 Hewes Street • Brooklyn 11, N. Y.
Plant: 67 North 9th Street • Brooklyn 11, N. Y.
Phone: MAin 5-7450 • *Cable:* Chemprod Brooklyn



SHELLCREASE has both the flexibility of wrapping paper and the protective qualities of corrugated board. Minute scoring marks in the corrugation permits SHELLCREASE to be easily folded at any point . . . across the corrugation or diagonally in any direction. It can be rolled against the corrugation with the same ease as with the corrugation.

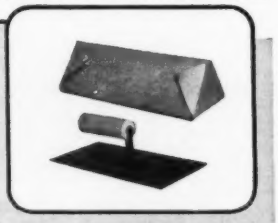
Available in stock rolls up to 72" wide, 250 feet long or in sheets, cut to order. Four weights — 35, 55, 70 and 100 pound basis.



A demonstration of space saved is illustrated above. Note that 12 funnels occupy only half the space wrapped in SHELLCREASE.

SHELLCREASE wraps around odd-shaped objects like a "glove" providing a light-weight, fully cushioned container without adding any unnecessary weight.

Write to Dept. MP for samples and descriptive brochure illustrating dozens of applications for SHELLCREASE.



SHELTON has been designing and manufacturing corrugated products since 1919.

SHELTON MANUFACTURING CO., INC.
42-24 Orchard St. • Long Island City 1, N. Y.

Equipment and Materials
Continued

$2.24 per gallon. The laboratories also report that polyamide resin suspensoids are now available in semi-commercial quantities.

SEMI-AUTOMATIC LIQUID FILLING MACHINE

Packers who make frequent changes of container sizes and liquids to be filled may find need for the new semi-automatic vacuum liquid filling machine offered by Packer Machinery Corp., 30 Irving Pl., New York. Said to be low in cost, the filler is known as the "Model-A." It is made to fill bottles or cans from ounces to quart sizes and is available with three and four spouts.

GIFT-PACKAGE DECORATIONS

A line of decorative trimmings for gift packages is now available through Pack-a-Puffs, 10 Bleecker St., New York. Most of the decorations are designed for quick application on packages and include tassels of metallic foils, wreaths and flowerlike cluster items combining chenille and foil.

The decorations may be ordered complete with ribbon bands attached, ready for tying to the finished package.

FOAM-CONTROL EMULSION FOR PAPER MILLS

Foaming difficulties in beaters and mixing chests in paper mills may be controlled by adding a small amount of "Emulsion Foam Killer" to the stock immediately before it passes through screens, riffles and washers, according to Paisley Products, Inc., 1770 Canalport Ave., Chicago, which originally developed this emulsion to reduce the foaming tendencies of their starch, dextrine, animal glue and synthetic resin adhesive products. It is claimed the emulsion breaks up small foam bubbles before they grow big through coagulation and oxidation of certain colloids and other substances as it disperses throughout the stock so that surface irregularities and pinholes can be eliminated. Paper mills currently using the emulsion dilute it with water.

NEW-TYPE AUTOMATIC BOX-MAKING MACHINE

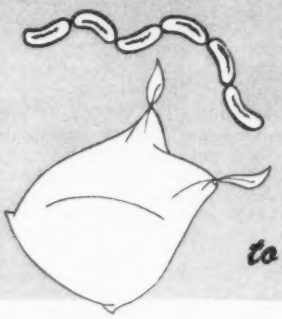
A new machine that has revolutionary possibilities for the set-up paper box industry will be shown at the Set-Up Paper Box Mfrs. convention (May 14 to 16, Chicago) by H. A. Gosling, president of Creative Engineers, Chicago, which developed the machine. The machine takes raw materials and performs, automatically, all the operations that are necessary to make a set-up paper box in 14 continuous steps, according to the company. It is also said to be fully adjustable, in a range of 4 to 16 in. square, in length, width and height. The machine requires four operators, but is said to reduce labor costs 80%.

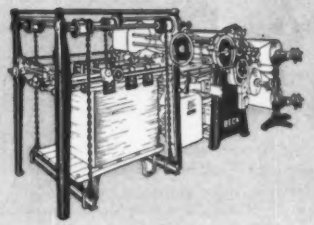
NEW SUPPLIER OF POLYETHYLENE LINERS

Polyethylene liners for use in multiwall bags, metal and fibre drums and cartons or barrels are now being marketed by National Waterproof Papers, Inc., and C. T. C. Industries, Inc., Front & Beckett Sts., Camden, N. J., under the trade name, "Natcolene." The liners are being sold directly to users.

from sausage casings

SHEETS?

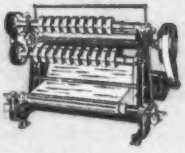




to burlap bags

from printed tape

SLITTING?



to colorful foil wraps

YOUR ANSWER: BECK belongs in YOUR packaging process

Need sheets cut from rolls? Challenge the BECK AUTOMATIC ROLL SHEET CUTTER with *any* of your materials. Or maybe it's rewound rolls of fine materials you want . . . the 1950 BECK RAZOR BLADE SLITTER AND REWINDER is your machine. If it's a sheeting or slitting problem, drop samples in your envelope . . . and ask for the full story on BECK machines. *Make* us show you why BECK belongs in your plant.

CHARLES BECK MACHINE CORPORATION

406 NORTH 13th STREET BECK PHILADELPHIA 8, PENNA.

Plants and People

Carl R. Megowen has been elected president of **Owens-Illinois Glass Co.**, Toledo, Ohio, while **J. P. Levis,** formerly president, has been elected chairman of the board and the chief executive officer of the company. Mr. Megowen has been associated with the company since 1921, in all phases of its operation, becoming executive vice president last year. Both he and Mr. Levis are members of the board of directors. Mr. Levis came to the home office in Toledo as vice president and general manager in 1938, having served in a similar capacity with Owens-Illinois Pacific Coast Co. He was elected president in 1941.

J. P. Levis C. R. Megowen

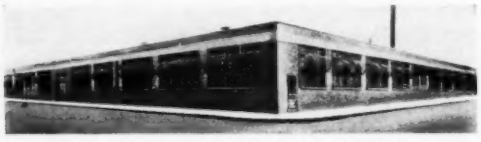
The Markem Machine Co. of Keene, N. H., manufacturer of industrial marking machines, has appointed the **Markem Machine Agency, Inc.,** as its sole distributor in New York State and Northern New Jersey. The agency has opened a New York sales office at 9 Rockefeller Plaza.

Morris Rosenthal, president of **Stein, Hall & Co., Inc.,** New York, announces that due to the serious illness of **J. Rexford Adams,** vice president and manager of the Dry Adhesives Department, it will be many months before he will again be on active service with the company. Therefore, the Liquid and Dry Adhesives Departments have been consolidated under the direction of **Roger Shoals. Paul Kaplan** of the New York sales branch will join Mr. Shoals in the department. **Eugene Thompson** and **Fred Schepper** will both continue their present administrative functions in the combined departments.

The Rossotti California Lithograph Corp. has opened a new office in Seattle, Wash., with Ivan Lottlfeldt as its representative. The new office, at 123 First Ave. S., will serve as headquarters for the Northwest territory.

Richard J. Cruise has been appointed to the sales staff of the **Cry-O-Vac Div.** of the **Dewey & Almy Chemical Co.,** Cambridge, Mass.

Ivers-Lee Co. are expanding their Sanitape Sealtite contract packaging facilities in a new 45,000 sq. ft., one-floor plant, near their No. 1 plant in Newark, N. J. This new plant is designed



for longer runs of pills, tablets and triturates and will provide straight-line, fully mechanized production so that every packaging operation will be handled under one roof.

J. H. Crones, president of **W. C. Ritchie & Co.,** has announced plans for expansion of the plant at 8801 S. Baltimore Ave., Chicago. The three-story addition will cover 50,000 sq. ft. and will be completed by late summer.

Directors of the **United Board & Carton Corp.,** Syracuse, N. Y., recently elected **P. M. Loddengaard** as president. Formerly executive vice president, Mr. Loddengaard succeeds **Fred Enders,** who was named chairman of the board of directors. **W. S. Stuhr,** former chairman of the board, was elected chairman of the executive committee.

Benjamin A. Riley has joined the staff of the industrial engineering department of **The Gardner Board & Carton Co.** as senior industrial engineer.

Adolph Gottscho, Inc., manufacturers of the Markomatic line of automatic code-dating and marking machines, expect to expand their sales, engineering and manufacturing departments in a new building at Hillside, N. J.

The Geo. H. Morrill Co., Div. of Sun Chemical Corp., will open a new modern plant the latter part of this year in Fort Worth, Tex. This plant will be the distribution center for Texas, Louisiana, Mississippi, Arkansas, Oklahoma and parts of New Mexico and Alabama.

Manning Graphic Arts Agency, 700 Longview Rd., Knoxville, Tenn., is now manufacturer's representative in Tennessee for **Palm, Fechteler & Co.,** makers of commercial decalcomanias.

James L. Snaman has been appointed general sales manager of **The Pannier Corp.,** Pittsburgh, marking-device manufacturer.

Milprint, Inc., Milwaukee, Wis., converters of packaging materials, announce the appointment of **Paul Hultkrans** as head of the Research and Product Development Department. Mr. Hultkrans headed Milprint's Cheese Packaging Division for eight years and is being succeeded in that assignment by **Donald Garry.** Also announced by Milprint is the appointment of **Stanley A. Garnett** to the company's Boston sales office, which is located at 428 Park Square Bldg., Boston, Mass.

P. Hultkrans

Counsel Machine Co., North Hackensack, N. J., announces the appointment of the **Paul L. Karstrom Co.,** 1822 W. 74th St., Chicago, as exclusive representative on a national basis for Robo-Lift conveyors.

Ketchpel Engineering Co. announce the addition of new regional representatives to their sales staff: New England states, **J. J. Austin** of Concord, Mass.; New Jersey, Pennsylvania and upper New York state, **A. R. Michaelson** of Caldwell, N. J.; 11 Western states, **Peter D. Bowley Associates,** San Francisco.

John D. Camps has been appointed general sales manager of the Overseas Div., **Sun Chemical Corp.,** Long Island City, N. Y.

Robert A. Radcliffe has been appointed sales manager of the **Modern Folding Carton Corp.,** 102 Kane St., Brooklyn, N. Y.

John H. Macleod, formerly with The Hinde & Dauch Paper Co., is now director of sales of both mill and corrugated paper products for the **National Container Corp.**

Alfred J. Lilienfeld is now associated with **Vanant Products, Inc.,** protective packing converters, Milwaukee, Wis. Mr. Lilienfeld, formerly with the Chicago Paper Co., has set up his own organization, **Protective Packaging Co.,** 7646 Cottage Grove Ave., Chicago. Protective Packaging Co. has been or-

Creative Package Engineering

this corrugated dispenser box

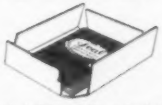
Protects . . . identifies . . . displays . . . dispenses . . . sells . . . *cuts packaging costs.* This is creative package engineering—*package action.* Applied to YOUR product it will give you pronounced competitive advantages— complete protection, favorable attention, sales stimulation. Consult Hinde & Dauch, Executive Offices, 5001 Decatur St., Sandusky, Ohio.

H&D®

HINDE & DAUCH

Authority on Packaging

Write For The H & D 11-Volume "Little Packaging Library."



FACTORIES AND SALES OFFICES IN: Baltimore • Buffalo • Chicago • Cleveland • Detroit • Gloucester, N. J. • Hoboken, N. J. • Kansas City, Kan. • Lenoir, N. C. • Richmond, Va. • Sandusky, Ohio St. Louis • Watertown, Mass. SALES OFFICES IN: Akron • Battle Creek • Cincinnati • Columbus • Denver • Erie, Pa. • Fairfield, Conn. • Findlay, Ohio • Greensboro, N. C. • Indianapolis • Miami Minneapolis • Olean, N. Y. • Omaha • Philadelphia • Pittsburgh • Reading, Pa. • Roanoke, Va. • Rochester • Toledo • Worcester, Mass. IN CANADA, HINDE & DAUCH PAPER CO. OF CANADA, LTD., Toronto • Montreal • Chatham • Calgary • Halifax • Hamilton • Kitchener • London • Peterborough • Quebec • Regina • St. John, N. B. • St. John's, Newfoundland • Vancouver • Winnipeg

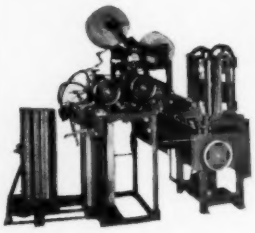
HIGH SPEED CARTON PACKAGING BY PETERS

Peters offers the best in high speed carton packaging with its "Senior" line of packaging machinery.

These high speed carton forming and lining machines and folding and closing machines, are doing a big job in many packaging departments. They pay for themselves in a short time by reducing labor costs and increasing production.

Besides the "Senior" models illustrated below, Peters has available, for those with lower production requirements, a "Junior" line of very versatile packaging machines.

Send us samples of the various cartons you are now using. We will gladly send specific recommendations.



This PETERS SENIOR CARTON FORMING & LINING MACHINE Equipped with Automatic Carton & Liner Feeding Device sets up 60 or more cartons per minute, depending upon size of carton used. Machine is automatic. After cartons are set up, they drop onto a conveyor where they are carried to be filled.

This PETERS D&W TYPE SENIOR CARTON FOLDING & CLOSING MACHINE closes 60 or more cartons per minute, depending upon size of carton used. Fully automatic, no operator required. The packages enter the machine on conveyor belt as open, filled cartons and leave the machine completely closed, ready to be packed for shipment or to be conveyed into a wrapping machine.

PETERS MACHINERY COMPANY
GENERAL OFFICE AND FACTORY
4700 RAVENSWOOD AVE., CHICAGO 40, ILL.

Plants and People

Continued

ganized for the purpose of representing Vanant Products, Inc., in the field of water-vaporproof, greaseproof and waterproof packaging, polyethylene bags and the new Vanant glass-packaging material known as Sus-Rap.

Arkell & Smiths, multiwall-bag manufacturers, announce the appointment of **Frank L. Smith** to their Columbus, Ohio, staff.

The Acme Paper Co., Memphis, Tenn., is now located in its new and larger building at 1240 Orgill Ave. at South Bellevue.

The Pulp Division of **The Mead Sales Co.,** Dayton, Ohio, has transfered **William M. Barrett** from Chicago to the New York office, 230 Park Ave., as assistant to **Allan T. Patton.**

The election of **C. W. Roberts** as vice president of the **American Can Co.,** New York, in charge of the Pacific Division has been announced. Mr. Roberts, who succeeds the late **E. H. Bell,** will make his new headquarters in San Francisco. Prior to his election as vice president, Mr. Roberts was assistant general manager of manufacture in the company's New York headquarters offices.

C. W. Roberts

American Can has also announced that its Tampa, Fla., plant—said to be the largest metal lithographing plant in the South—is now in operation. It occupies 25,000 sq. ft. of floor space and is scheduled to be doubled in size by early 1951 because of the growth of Florida's frozen concentrated citrus juice business.

Louis F. Weyand, vice president in charge of the **Minnesota Mining & Mfg. Co.'s** adhesives and coatings division, has been elected to the firm's board of directors.

Bruce Carton Co., 546 Weakley Ave., Memphis, Tenn., is now fully equipped to manufacture set-up paper boxes.

A $2,250,000 expansion program to enlarge its lines of Pliovic vinyl resins for the plastics industry has been announced by the **Goodyear Tire & Rubber Co.,** Akron, Ohio. This expansion will be made at the company's chemical division subsidiary, the **Pathfinder Chemical Corp.,** at Niagara Falls, N. Y.

Bemis Bro. Bag Co., St. Louis, Mo., announces the following changes in sales personnel: **Harvey C. Wilson,** who was transferred from the Eastern Kansas territory, is now Southern Kansas salesman, replacing **J. O. Frahm,** who recently resigned; **W. B. Kruse** replaces Mr. Wilson in Eastern Kansas.

The Filtrol Corp. has moved its executive and sales office to 727 W. Seventh St., Los Angeles 17, Calif.

The Fancy Container Div. of the **I. D. Co.,** New York, has appointed **Victor Cowley** of the **Cowley Co.,** 435 Locust St., San Francisco, as exclusive California sales representative.

Charles H. Burger, Jr., has joined the sales staff of the **Polygraphic Co. of America.**

The Leeds Sales Co., Inc., 294 Fifth Ave., New York, announces that the new Falge transparent plastic set-up boxes will be marketed under the name "TransCell." The Leeds Sales Co. is the sole selling agent for these boxes.

The Stecher-Traung Lithograph Corp. of Rochester, N. Y., and San Francisco, Calif., announces the acquisition of **Rode & Brand, Inc.,** 200 William St., New York. The New York area sales offices of Stecher-Traung and Rode & Brand have been consolidated and are known as the Rode & Brand Division of the Stecher-Traung Lithograph Corp., operating under the

The broken band on an ALCOA PILFERPROOF CLOSURE . . . like the insistent clanging of a burglar alarm . . . warns that someone has tampered with your property. For the Pilferproof is so constructed that once the slotted band is broken it cannot be replaced. This telltale evidence protects the quality of your product . . . discourages pilferage. Pilferproof Closures are available in any color or lithographed design . . . can be economically applied on manually-operated or automatic machines. For complete information let us send our catalog. It's free. Write: ALUMINUM COMPANY OF AMERICA, 1705E Gulf Building, Pittsburgh 19, Pennsylvania.

ALCOA

ALUMINUM

ALCOA

CLOSURES

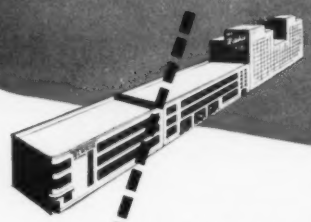
FORMERLY SOLD AS ALSEAL SEALS

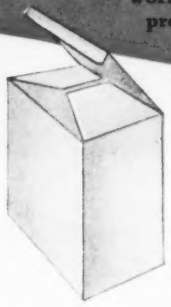
extra advantages for YOU in this

COMPLETE PACKAGING LINE

Rx ...it pays to Specify Ritchie

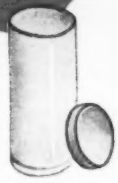
The extensive, varied Ritchie line of packaging assures you almost Unlimited Selection... Production Economies of newest type equipment... High Standard of Quality ...A Source That Has No "Packaging Pets" but produces *all kinds* of paper or rigid transparent packages... plus Ritchie's 84 Years Experience in working with leading package users, to produce the right package to suit each product and marketing situation.





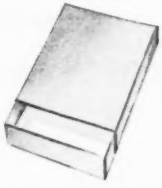
Folding Cartons
Ritchie Rx

When you have Ritchie make your Folding Cartons, they are produced by the Most Modern Machinery and Methods known to the Packaging Art. For example, the creases on Ritchie Folding Cartons are all pre-folded, making assembling operations easier and faster.



Fibre Cans
Ritchie Rx

Spiral or Convolutely Wound Fibre Cans, round, rectangular or oval, in almost any size and with a wide variety of closures.



Set-Up Boxes
Ritchie Rx

Choose from all styles, in rectangular, round or odd shapes, the quality set-up boxes that makers of America's finest merchandise are proud to choose for their products. Leaders in over 150 different industries, "Specify Ritchie".

Transparent Packages
Ritchie Rx

Let us develop a special sales-stimulating package for you that will make your product attractively visible inside the package.

Paper Spools
Ritchie Rx

Various size spools for winding ribbon and string; also tubes and cores to meet special packaging and manufacturing requirements.

FREE BROCHURE Please send my copy of your brochure "101 Ways to Get Better Packaging". a handy reference booklet every package buyer should have; also suggestions and quotations on ☐ Set-Up Boxes ☐ Fibre Cans ☐ Transparent Boxes ☐ Folding Cartons. Please have a Ritchie Representative call.

W. C. Ritchie and Company,
8840 Baltimore Ave., Chicago 17, Ill.

SIGNED.....TITLE.....

COMPANY NAME.....

STREET ADDRESS.....

CITY.....ZONE.....STATE.....

W. C. Ritchie AND COMPANY
A Source of "Packaging Satisfaction" Since 1866

8840 BALTIMORE AVENUE, CHICAGO 17, ILLINOIS
New York • Los Angeles • Detroit • Dallas • Denver
Providence • St. Louis • Cleveland • Jacksonville

Plants and People
Continued

direction of **Alfred B. Rode, Jr.**, as general manager of the division. Mr. Rode will be assisted by **J. T. Sullivan** and **J. E. Paris** of Stecher-Traung's New York sales office. New office quarters are being arranged in the Grand Central district.

Monsanto Chemical Co. will commence the production of polystyrene plastic molding compound about August 1 in a new plant to be constructed at Long Beach, Calif. It will be operated by the company's Western Division, which has its headquarters in Seattle, Wash., and will be the first major manufacturing operation located by Monsanto in California.

Specialty Papers Co., Dayton, Ohio, now represents **Allen Cartons, Inc.**, of Dayton on an exclusive basis to the baking industry in all territories East of the Rocky Mountains. Specialty's salesmen will also service carton users in other industries on a non-exclusive basis.

Anchor Hocking Glass Corp., Lancaster, Ohio, announces the consolidation of its Boston Package and Tableware display and sales offices in enlarged headquarters at 238 Main St., Cambridge 42, Mass. In Boston, **H. W. Robinson** manages package sales, while **C. E. Smith** manages the Tableware Division.

William D. Pomeroy, sales engineer and sales representative in the Eastern States for **Synder Tool & Engineering Co.**, Detroit, has been appointed sales representative in Western New York for **Arthur Colton Co.**, a Snyder subsidiary. Mr. Pomeroy will make his headquarters at Seneca Falls, N. Y.

The Lord Baltimore Press, 1500 Greenmount Ave., Baltimore, Md., announce the addition of **Stuart Sexton** and **Albert P. Degen** to their sales staff. Mr. Sexton, associated with the American Telephone & Telegraph Co. for many years, has been appointed representative for the Kentucky, Ohio, Indiana, Missouri and Tennessee territory, with headquarters in the Starks Bldg., Louisville 2, Ky. Mr. Degen has been appointed sales representative in the Chicago area with offices at 333 N. Michigan Ave.

S. Sexton

A. P. Degen

The Wabash Fibre Box Co., Terre Haute, Ind., has appointed **George Connor, Phil J. Miller** and **James Glynn** as sales staff representatives.

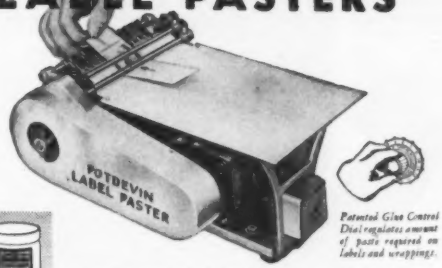
Establishment of new sales offices in Houston, Tex., and Cincinnati, Ohio, is announced by **Plax Corp.**, Hartford, Conn., manufacturers of polyethylene squeeze bottles and extruders of plastics. **E. W. McKinney** will be in charge of the Houston office, located at 2615 Fannin St. **A. F. Duemler, Jr.**, will operate out of Cincinnati, with offices at 104 E. Fourth St.

Robert Gair Co., Inc., New York, manufacturers of paperboard, folding cartons and shipping containers, announce the resignation of **Sumner R. Cahoon** as vice president in charge of container operations. Mr. Cahoon will continue with the company in an advisory capacity until Aug. 1, 1950, when he plans to join the **Binghamton Container Co., Inc.**, of Binghamton, N. Y., in which he will have an interest. **William T. May**, sales manager of Gair's container division, has been

speed up production with

POTDEVIN

LABEL PASTERS



Patented Glue Control Dial regulates amount of paste required on labels and wrappings.

Economy-minded business men have discarded more expensive methods of labelling for modern, efficient POTDEVIN Label Pasters. Savings in work hours and stock costs quickly make up the cost of your POTDEVIN . . . and the work is always clean and neat.

Models available for 6, 8½, 12 and 18 inch labels, hand driven and motor driven.

10 Day FREE Trial Offer

Label Paster Literature on Request

POTDEVIN MACHINE CO.

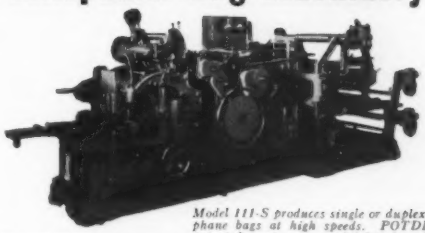
1244 38th Street, Brooklyn 18, N.Y.

Designers and manufacturers since 1893 of equipment for Bag Making, Printing, Coating, Gluing and Labeling.

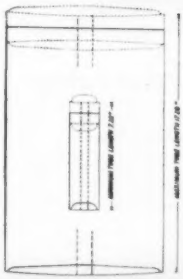
POTDEVIN

POTDEVIN

Cellophane Bag Machinery



Model 111-S produces single or duplex cellophane bags at high speeds. POTDEVIN patented compensator and "electric eye" controls register of pre-printed cellophane.



Models include flat-and-square and satchel-bottom bag machines for all popular sizes. The lip on POTDEVIN made bags makes them especially adaptable to operation on automatic filling machines. Method of cut-off prevents "fusing," side splitting or corner splitting. Cellophane aniline presses also available.

Consult our engineers on any problem. No obligation. Literature on request.

POTDEVIN MACHINE CO.

1244 38th St., Brooklyn 18, N.Y.

Designers and manufacturers since 1893 of equipment for Bag Making, Printing, Coating, Gluing and Labeling.

POTDEVIN

Douglas Young Inc. are famous as creators of Outstanding Boxes, Transparent Displays and Distinctive Packaging possessing unusual eye-value, increasing consumer acceptance.

Spring hinges, exclusively patented, plus superior craftsmanship combine to satisfy the most fastidious buyer. Estimates, samples and service of highest standards invite your early inquiry.

DOUGLAS YOUNG INC. • 110 KENYON AVE., PAWT., R. I.

Combines NEW ECONOMIES with INCREASED PACKAGE OUTPUT

The Montgomery Co. of Philadelphia Pa. (see above cut) employs only one operator to package 31, 1 pound bags of Lima beans per minute (more than 14,000 bags per 8 hour shift). Note the floor space saving corner installation.

Both heat sealing and laminated type prefabricated bags can be used to package any free flowing, dry product. Versatile Model 200 offers either weight, volume or count filling . . . fin, fold down or fin with label closures. *Write for new illustrated folder.*

NIAGARA
PACKAGING MACHINERY CORPORATION
33 CLYDE AVE. BUFFALO 15, N. Y.

Plants and People

placed in charge of the container operations of the company. Also announced by the Gair company is the appointment of **John P. Greiveldinger** as production manager for all of Gair's corrugated box divisions. **C. S. Huestis** has assumed the management of container board production and **William H. Caddoo** is now manager of Gair's Thames River division.

The management staff of the **Du Pont Co.**'s new Film Department, which became effective on April 1, has been announced by **Donald F. Carpenter,** general manager. **Arlington Kunsman,** now manager of the Cellophane Division which is being incorporated in the Film Department, is assistant general manager. **R. E. T. Haff,** present director of Cel-O-Seal closures and cellulose sponges, will be placed on special assignment reporting to the general management. **C. A. Haley,** manager of the Cellophane Division's planning section, becomes control manager of the new department. **Walter O. Simon,** present assistant director of production of the Rayon Division, will direct production. **John F. McCune,** director of production of the Cellophane Division, will manage film production and **Charles W. Nulse,** assistant director of the Cel-O-Seal cellulose closure and cellulose sponge section, will become manager of the production of those products. **J. Edward Dean,** now assistant manager of the Cellophane Division, will become director of sales of the new department. **Clarence F. Brown,** director of sales of the Cellophane Division, will continue to direct sales of that film, while **A. F. Wendler** will be sales manager for specialty films and **T. W. Holland** will continue to manage sales for Cel-O-Seal closures and cellulose sponges. **John L. Brill,** chemical director of the Plastics Division of the Polychemicals Department, becomes technical director of the Film Department. His assistant will be **Dr. George M. Karns,** present director of cellophane research in the Rayon Technical Division. **Dr. Edward W. Spanagel** will be assistant manager of film production.

Changes in the Polychemicals Department have also been announced. The two existing chemical divisions will be consolidated into a single Chemical Division under the direction of **Dr. John S. Beekley,** now head of the Chemicals unit of the department. **Lombard Squires** will be assistant chemical director. **Dr. Robert E. Burk** becomes associate director and **Dr. Edward C. Kirkpatrick** becomes general laboratory director in the combined division.

The Stone Container Corp., manufacturer of paperboard and corrugated containers, announces that a new fabricating plant is now under construction in Mansfield, Ohio. Situated between the firm's two paper mills in Coshocton and Franklin, Ohio, the plant will occupy approximately 50,000 sq. ft. of space. The plant, when completed, will be equipped to manufacture all types of corrugated containers.

R. W. Smith, president of the **International Printing Ink Division of Interchemical Corp.,** died suddenly at Ft. Meyers Beach, Fla., on April 11. Mr. Smith was elected president of IPI in 1944 having been with the parent organization since its formation in 1929.

Thomas M. Rector, vice president at **General Foods Corp.,** died March 31, in Battle Creek, Mich., following a heart attack. He was 56 and had been associated with the General Foods Corp. for 28 years. Mr. Rector was author of several reference books and many articles on food research.

Joseph Austin, New England representative of the **George H. Fry Co.,** makers of packaging machinery, died on April 1.

THE 4 Stoway GASKETEERS

Stoway's NEW GASKET-SEAL CONTAINERS

For More Sales... Greater Re-use Appeal

For the first time in the packaging industry an all plastic, airtight twist-seal container with a synthetic rubber gasket seal!

Your products packaged in Stoway containers will have the powerful selling combinations of COLOR and VISIBILITY OF PRODUCT . . . PLUS RE-USE OF CONTAINER which is backed by PROVEN CONSUMER DEMAND!

Made of odorless, tasteless, chip-proof Styron. • Withstands heat to 160°F., cold to —40°F. • Slight twist of the lid makes an airtight seal. • Fits all automatic packaging equipment. • Available in a wide choice of colors and combinations. • Sizes: 5, 8, 12 and 16 ozs.

Stoway Containers Stimulate Sales!

For further information and prices write...

SOUTHERN CALIFORNIA PLASTIC COMPANY

1805 FLOWER ST. · GLENDALE · CALIFORNIA

Finishing Touch

by

SEAL-SPOUT*

The manufacturers of "CALGONITE" have added extra "buy-appeal" to their packages—by using SEAL-SPOUTS.

In addition, SEAL-SPOUTS protect package contents against moisture and dust *after* the package has been opened for use.

Let us show you what SEAL-SPOUTS *will do for your product; send us one of your packages. We'll insert a* SEAL-SPOUT *and return it.*

*T.M. Reg. U.S. Pat. Off.

SEAL-SPOUT CORPORATION
363 Jelliff Ave., Newark 8, N. J.

Always

READY FOR A QUICK *sale*

Your product has received the final operation . . . superb wrapping by the Hayssen . . . and now is ready to move off the shelves in quick-service fashion. Besides adequate protection, the sure-sealed package builds up confidence in the buyer. She feels certain the product must be good when so much care has been taken in the packaging; for Hayssen wrapping reflects the quality of the merchandise it enfolds. 40 years of wrapping machine experience are back of every Hayssen, and the Hayssen of today is known for its simplicity of design and dependable performance. It is sturdily built . . . registers printed overwraps accurately . . . and fully automatic. And since it is low in initial and upkeep cost . . . with speed adjustable for steady production . . . it keeps the unit-cost of wrapping at a low level. Investigate the Hayssen fully—write to the home office. We'll send complete information and the name of your Hayssen representative.

HAYSSEN MFG. COMPANY
SHEBOYGAN, WISCONSIN

Hayssen
ELECTRIC EYE WRAPPING MACHINES

Liners of BAKELITE Polyethylene permit use of lightweight fiber drums with resultant savings in shipping costs.

Carton liners of BAKELITE Polyethylene protect food, chemicals and drugs against contamination en route.

CONTAINERS COME CLEAN

with liners of BAKELITE *Polyethylene*

More and more alert shippers are turning to liners of BAKELITE Polyethylene. These remarkable time and money savers cut shipping costs . . . allow complete product recovery . . . protect sensitive products against contamination.

These benefits derive from the inherent characteristics of BAKELITE Polyethylene. Look over this list — see how many have direct application to your problems.

- **Superior resistance to water, moisture, oils, fats, grease and most chemicals.**
- **Basic elasticity that resists snags.**
- **Extreme flexibility — tear-resisting durability — even at below zero temperatures.**
- **Surface dryness that eliminates sticking, clinging or "blocking."**
- **Heat sealability that means easy fabrication.**
- **Tasteless, odorless, non-toxic.**

Few packaging materials can claim so many desirable properties. BAKELITE Polyethylene's versatility is rapidly making it the first choice for packaging such diverse items as fresh and frozen foods, cosmetics, flowers, tobacco, chemicals and petroleum products. It can do a job for you, too. We will be glad to send you complete information on the use of BAKELITE Polyethylene or VINYLITE Brand Plastics —in film, molded or extruded forms, or for coating paper or foil. Write Department IH-55.

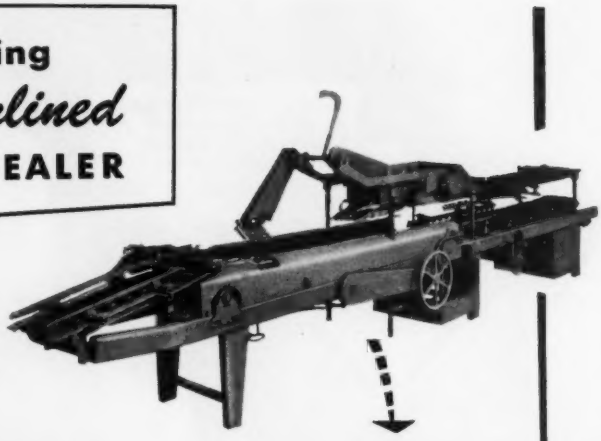
Data courtesy The Visking Corporation
Fort Harrison Road and Fruit Ridge Ave., Terre Haute, Ind.

Liners made of BAKELITE Polyethylene for steel drums assure complete recovery . . . eliminate expensive cleaning . . . keep your drums in service always.

Bakelite TRADE MARK *Polyethylene* PLASTICS

BAKELITE DIVISION
Union Carbide and Carbon Corporation
30 East 42nd Street, New York 17, N. Y.

For tight sealing
NEW *Streamlined*
ELLIOTT CASE SEALER



AUTOMATIC, SEMI-AUTOMATIC
AND HAND MODELS...
LENGTHS TO SPECIFICATIONS

Elliott Manufacturing Co.
WHEREVER FRUIT GROWS OUR MACHINERY GOES
FOOD, FRUIT AND SPECIAL MACHINERY

Send for free Bulletin No. 100

FRESNO 1 • CALIFORNIA

WAXES

For paper board impregnation

FOR DIP COATINGS
EMULSIFIED WAXES
COATING WAXES

•

Meet Army and Navy Specifications
WAXES FOR FUNGUS PROOFING
Our laboratory will welcome your problems

•

Zophar Mills, Inc. has been known for its dependable service and uniformity of product since 1846.

ZOPHAR MILLS, Inc.
Established 1846
106-26th Street • Brooklyn 32, New York

WEINMAN TRANSPARENT BOXES
ATTRACT SPUR-OF-THE-MOMENT SALES!

SEND FOR
SAMPLES & CATALOG

Manufacturers of shoes, toys, confectionery, and many other types of merchandise have found these plastic containers the easy way to BOOST SALES.

Weinman Brothers, INC.
MANUFACTURERS
3260 W. GRAND AVE., CHICAGO 51

PROPER PACKAGING Is the Key to Better Customer Relations . . .

The esteem in which you are held by your customers is one of the most valuable assets of your business. The danger of aggravating customers with damaged goods, and jeopardizing this esteem, can be largely eliminated by using the right box for your product.

Permit Gaylord to analyze your present shipping container to see how it can be improved to do a better job of protecting your merchandise *and* your good will.

CORRUGATED AND SOLID FIBRE BOXES • FOLDING CARTONS • KRAFT BAGS AND SACKS • KRAFT PAPER AND SPECIALTIES

GAYLORD CONTAINER CORPORATION General Offices: **SAINT LOUIS**

New York • Chicago • San Francisco • Atlanta • New Orleans • Jersey City • Seattle
Indianapolis • Houston • Los Angeles • Oakland • Minneapolis • Detroit • Jacksonville
Columbus • Fort Worth • Tampa • Cincinnati • Dallas • Des Moines • Oklahoma City
Greenville • Portland • St. Louis • San Antonio • Memphis • Kansas City • Bogalusa
Milwaukee • Chattanooga • Weslaco • New Haven • Appleton • Hickory • Greensboro
Sumter • Jackson • Miami • Omaha • Mobile • Philadelphia • Little Rock • Charlotte

Gaylord Boxes

For Your Information

A new form of membership in the **Packaging Institute** has been approved by the board of directors whereby an individual is eligible to become an associate member so long as he is employed by a corporate member. He may pay his own dues or the dues may be paid by the employer, which differs from the older alternate membership in which only the employer could pay the dues. Associate membership has been created to permit more younger men to have access to the work and publications of the Institute. The associate receives everything the corporate member receives, except the right to invoke the advisory service. Dues for associate members are $15 a year, plus an entrance fee of $2.50 to cover part of the cost of back reports, etc., available to new associates. The directors believe that a greater number of persons engaged in packaging will be benefitted by having available all the Institute's publications, as well as the right to participate in answering any advisory service request. Nominations for associate members should be sent to the Packaging Institute, 342 Madison Ave., New York.

The fourth **National Materials Handling Exposition,** which in three years grew to rank among the five largest industrial shows in the country, will be held in the International Amphitheatre, Chicago, April 30 to May 4, 1951, according to Clapp & Poliak, Inc., New York, the exposition management. Concurrently with the show, sponsored by the **Materials Handling Institute,** a conference will be conducted on new techniques in materials handling and related fields. The conference will be developed by the **American Materials Handling Society.** Outstanding among the innovations of the show will be a large outdoor area for demonstrating actual use of yard-handling equipment, not previously possible with indoor exhibits.

What's doing

May 14–17—**National Paper Box Mfrs. Assn.,** annual convention, Drake Hotel, Chicago.

May 14–18—**Super Market Institute,** annual meeting, Chicago.

May 16–18—**Toilet Goods Assn.,** convention, Waldorf-Astoria, New York.

May 21–25—**Institute of Food Technologists,** decennial conference, Edgewater Beach Hotel, Chicago.

May 23–26—**35th National Conference on Weights and Measures,** Wardman Park Hotel, Washington, D. C.

May 25–27—**Proprietary Assn.,** convention, Greenbrier Hotel, White Sulphur Springs, W. Va.

May 29–31—**American Pharmaceutical Mfrs. Assn.,** convention, Hotel Broadmoore, Colorado Springs, Colo.

June 4–8—**National Assn. of Retail Grocers,** convention, Navy Pier, Chicago.

June 4–9—**National Confectioners' Assn.,** 67th annual convention and 24th confectionery industries exposition, Waldorf-Astoria and Grand Central Palace, New York.

June 12–16—**Packaging and Materials Handling Institute** sponsored by Society of Industrial Packaging and Materials Handling Engineers and University of Southern California, Los Angeles.

June 12–30—**Massachusetts Institute of Technology,** Special Course in Food Technology, Cambridge, Mass.

June 26–30—**American Society for Testing Materials,** 53rd annual meeting and 9th exhibit, Chalfonte-Haddon Hall, Atlantic City, N. J.

June 29–July 1—**Grocery Mfrs. of America,** mid-year meeting, Greenbrier, White Sulphur Springs, W. Va.

Of interest to the packaging industry is a check list titled "Progress in Sales Management, Marketing and Packaging," recently published by the **American Management Assn.** It lists 57 publications by 230 authors and covers such subjects as economic factors in market planning, market research, reducing distribution costs, the psychology of consumer packaging, etc. Request copies from AMA, 330 W. 42nd St., New York.

By unanimous decision of the Board of Judges, the **Charles S. Welch Memorial Award** of the **Toilet Goods Assn.** will not be made this year. In communicating this decision to the Award Committee, **C. W. Browne,** chairman of the Board of Judges and editor of *Modern Packaging Encyclopedia,* reported that because many of the entries "went beyond the confines of the practical and beautiful . . . the cause of progress in packaging would not be served by making an award this year."

Harold H. Worth has joined the staff of the **Folding Paper Box Assn. of America,** Chicago, as the organization's Pacific Coast representative.

An over-all picture of the folding carton's development and its place in modern mass merchandising is presented in a well-illustrated 53-page booklet, "The Folding Carton," just published by the **Folding Paper Box Assn. of America,** 337 W. Madison St., Chicago. Broken down into 11 sections, the booklet explains the development, functions and characteristics of folding cartons; their styles, uses, specifications, designs; the economic status of folding cartons, as well as many other phases of the folding-carton industry. Copies of the booklet are available from the association.

A two-week joint **Navy-Air Force Seminar on Packaging and Materials Handling** held at the U. S. Naval Station, New Orleans, La., March 5 to 18, was attended by 64 reserve officers from key industries in 20 states. The seminar, third in a yearly series of four, was directed by **Lt. Cmdr. Clinton K. Royce,** USNR, of the Office of Naval Material in Washington, D. C. **Lt. Col. Herbert M. Lapidus,** Air-Force reservist of the Aviation Supply Office, Philadelphia, was co-director.

Haskell Stovroff of the Buffalo Waste Paper Co. is the new president of the **Waste Paper Institute.** Other officers elected were **Stuart B. Sutphin, Jr.,** vice president; **Jean Charak,** treasurer; **Clinton M. White,** secretary.

A three-color folder titled "All Eyes Light on Clearsite" details and illustrates the advantages of Clearsite plastic containers for the pharmaceutical, drug sundries and cosmetic fields. Copies of Folder DM-1 are available free of charge on request to **Celluplastic Corp.,** 50 Avenue L, Newark 5, N. J.

Food processing and food packaging developments based on American postwar investigations of Germany are available in a report just released by the **Office of Technical Services** of the **U. S. Department of Commerce.** The report is divided into 10 main sections: canned foods and food-can manufacturing; frozen foods; dehydrated foods; meats and meat products; milling and baking; edible fats and oils; specialty and saccharine products; Army feeding; research activities; food rationing during wartime. The complete report (PB 99020, Survey

Great Show-er Off-er

IT'S A GREAT PRODUCT to show off merchandise—this Kodapak Sheet. Clear as water, tough, durable, it makes up into containers of lasting utility . . . containers that attract customers, get them to stop and look—to see and buy—without fingering. Result: faster turnover—fresher, more attractive stock.

You'll find Kodapak Sheet available in two basic forms: Kodapak I Sheet, cellulose acetate, in gauges up to 0.060"; Kodapak II Sheet, cellulose acetate butyrate, in gauges up to 0.002". Both are made to the same high standards, under the same conditions as Kodak photographic film base.

To learn more about the fabrication possibilities and practical uses of Kodapak Sheet, consult your nearest representative, or write to Rochester. And the extensive facilities of the Kodapak Demonstration Laboratory are always available, by appointment.

Cellulose Products Division
Eastman Kodak Company, Rochester 4, N. Y.

Sales Offices: **New York, Chicago.**
District Sales Representatives: **Cleveland, Philadelphia, Providence.**
Pacific Coast Distributor: **Wilson & Geo. Meyer & Co., San Francisco, Los Angeles, Portland, Seattle.**
Canadian Distributor: **Paper Sales, Ltd., Toronto, Montreal.**

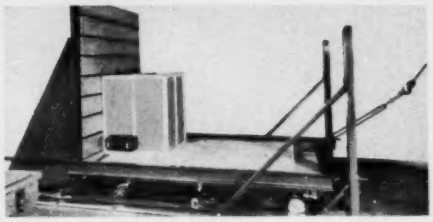
FOR THE DISPLAY YOU WANT...THE PROTECTION YOU NEED...

Kodapak Sheet

"Kodapak" is a trade-mark

Kodak
TRADE-MARK

FOR YOUR PROTECTION...
HAVE YOUR PACKAGING
TESTED BY AN OUTSTANDING
CERTIFIED LABORATORY



The United States Testing Company, Inc., one of America's great scientific laboratories, has been certified by the National Safe Transit Committee. Extensive facilities and large staffs of trained technicians are at your service in a two-fold program of protection: (1) Testing of packaging under the Committee's Projects 1 and 1A; (2) Development work with package designers and packaging engineers toward improvements based on test results.

Typical of the Testing Company's leadership in testing equipment and methods is its new combination vibration and impact tester illustrated here... the first machine of its type on the market, the most modern and efficient combination machine ever designed.

A letter or phone call will bring you complete information on our packaging testing service, how it provides vital protection to you, and how it solves your packaging problems. No obligation, of course.

UNITED STATES
TESTING COMPANY, INC.

Established 1880

HOBOKEN, NEW JERSEY

PHILADELPHIA • BOSTON • WOONSOCKET • CHICAGO
NEW YORK • LOS ANGELES • DENVER • MEMPHIS

Member of American Council of Commercial Laboratories

For Your Information
Continued

of German Wartime Food Processing, Packaging and Allocation) sells for $68.75 in photostat form and $9 in microfilm. Any of the 10 sections may be purchased separately from the Commerce Department, Washington 25, D. C.

The American Machine & Foundry Co., 511 Fifth Ave., New York, has just published its 1949 Annual Report, together with a 50th anniversary supplement. This 50th anniversary brochure traces the growth of the company from its beginning on March 26, 1900, as a manufacturer of tobacco machinery, to its present-day, broadly diversified line of equipment and machinery, with eight plants employing more than 3,000 persons.

The Reynolds Metals Co., Aluminum Division, has available a complete listing of the various aluminum products available from Reynolds Metals. Products are listed by types rather than by trade names so that they may be fitted in with other general-category listings. Request copies from G. W. Birdsall, manager, Technical Editorial Service, Reynolds Metals Co., 2500 S. Third St., Louisville, Ky.

The Society of Industrial Packaging and Materials Handling Engineers has just published "Proceedings," a 222-page volume of the papers which comprised the Second Wayne University Packaging and Materials Handling Institute, held in Detroit last October. This fourth in a series of volumes covering the Society's educational programs is priced at $3 per copy and is available from the Society, 20 W. Jackson Blvd., Chicago.

A digest of field reports of a nation-wide sampling of opinion at the retailer level on the adequacies and inadequacies of packaging has been prepared by the Containers Section of the **U. S. Department of Commerce** and is available in a booklet entitled "The Retailer Looks at Packaging." This material has been reprinted from the Spring 1950 issue of "Containers and Packaging" and may be obtained from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C., at 10 cents a copy.

Among the speakers at the recent annual conference of the **Brand Names Foundation** at the Waldorf-Astoria in New York was **Howard A. Trumbull**, president of National Family Opinion, Inc., Toledo, who presented for the first time the results of a cross-country survey of the buying habits of 1,500 typical American families. According to Mr. Trumbull, the survey showed that monopoly is non-existent in the consumer-goods fields where trademarking and advertising are prevalent. Actually, he reported, the variety of brand preferences among members of America's families prevents domination by one or a few brands in any field of consumer buying. Re-elected to office by the Foundation were **Donald B. Douglas**, chairman of the board; **Major General Julius Ochs Adler**, vice chairman; **W. T. Holliday**, second vice president; **Henry E. Abt**, president; **Gavin K. MacBain**, treasurer; **John W. Hubbell**, chairman of the executive committee.

Gordon Cartons, Inc., Baltimore, Md., sponsors of the Annual Carton Design Contest at the Maryland Institute, Baltimore, announces the following winners of the fourth annual contest: **William O. Steinmetz, John Riggin, Jr., James C. Washburn, Marjorie Mazor, Clyde H. Baker, Lillian Pisaruk, Gary L. Hughes** and **Roland J. Vaillancourt.** These contests are held to stimulate students' interest in carton and package design.

The Babcock Award, provided by the **Nutrition Foundation,** will be awarded at the decennial conference of the Institute of Food Technologists in Chicago to **Dr. Carl R. Fellers,** president of the Institute of Food Technologists and chairman of the Department of Food Technology at the University of Massachusetts.

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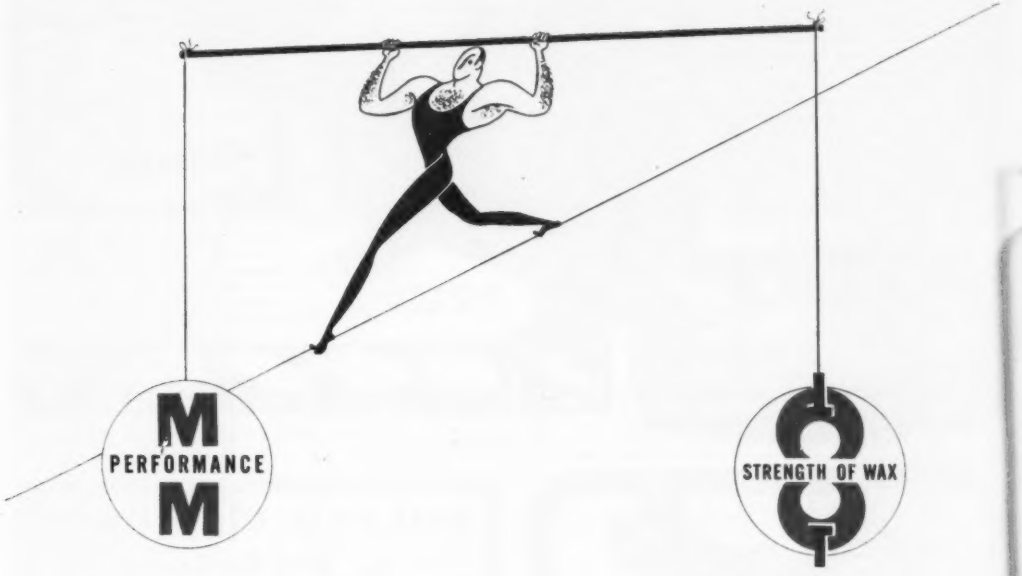

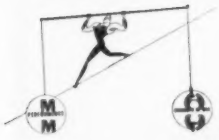

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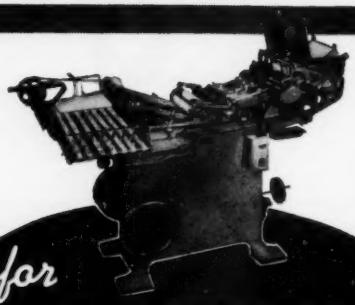

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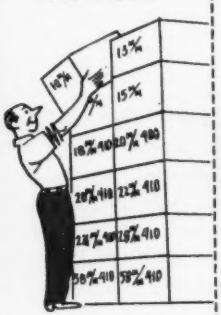

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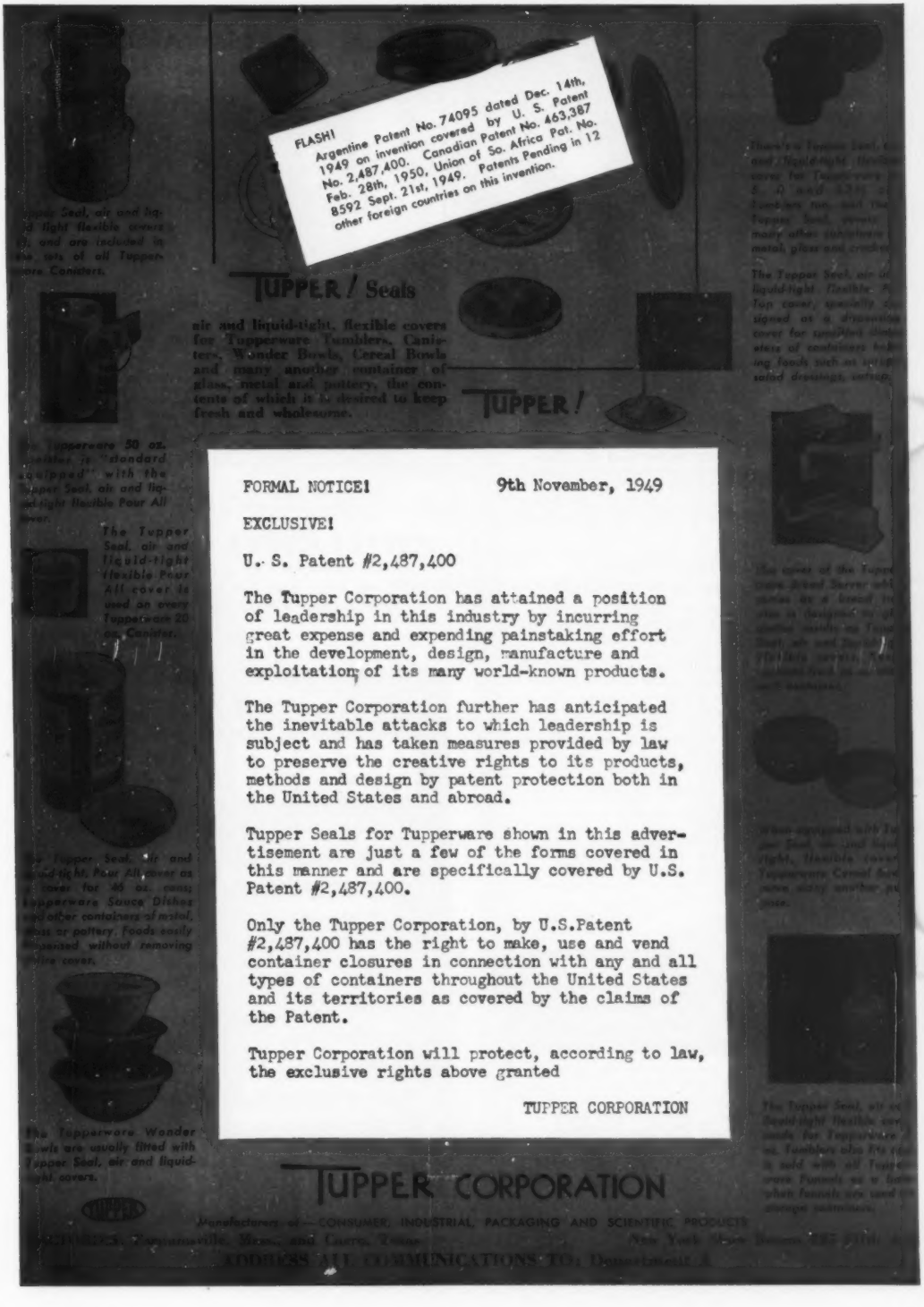
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Argentine Patent No. 74095 dated Dec. 14th, 1949 on invention covered by U. S. Patent No. 2,487,400. Canadian Patent No. 463,387 Feb. 28th, 1950, Union of So. Africa Pat. No. 8592 Sept. 21st, 1949. Patents Pending in 12 other foreign countries on this invention.
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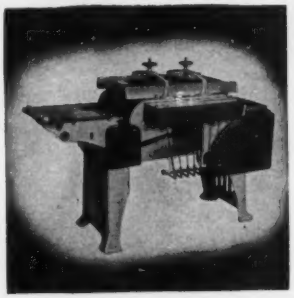

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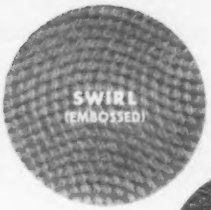

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NEW YORK CHICAGO MINNEAPOLIS DETROIT

U.S. Patents Digest

Edited by H. A. Levey

This digest includes each month the more important patents of interest to those who are concerned with packaging materials. Copies of patents are available from the U. S. Patent Office, Washington, at 25 cents each in currency, money order or certified check; postage stamps are not accepted.

Container Closure, S. W. Dennis (to Crown Cork & Seal Co., Inc., Baltimore, Md.). U. S. 2,497,870, Feb. 21. A container closure formed from a sheet of ductile material comprising a substantially flat top having a circular marginal portion merging directly into a downwardly rounded, gently curved, upper skirt portion, a lower skirt portion of greater diameter than the upper portion, a circumferentially continuous offset shoulder connecting the upper and lower skirt and having a locking corrugated flange at lower end of lower skirt portion.

Radio-Tube Package, J. Kolber, Chicago, Ill. U. S. 2,498,042, Feb. 21. A radio-tube package comprising, in combination, a radio tube having a set of base prongs at one end and a terminal boss at the other end, a container for the radio tube including a tubular body longer and of substantially greater internal diameter than the radio tube, an apertured closure at one end of the tubular body engaging the crown of the tube, permitting projection therethrough of the thermal boss of the tube and holding it in centered spaced relation to body.

Fluid-Operated Material Ejector for Rotary Can-Filling Machines, W. G. Tyrrel, Seattle, Wash. U. S. 2,498,100, Feb. 21. A can-filling machine for filling cans with materials which are fluid under pressure, consisting of: a vertically disposed revolvable shaft; a toothed, can-transporting wheel secured to shaft; a fixed can filler handling block, a block plate; a piston head revolvably mounted on shaft and an air supply and exhaust port in head plate, means for supplying air under pressure to fixed supply port and can-feed means.

Box-Cover Assembly, J. Rock, Jr. (to Crouse-Hinds Co., Syracuse, N. Y.). U. S. 2,498,135, Feb. 21. A box-cover assembly comprising a cover plate formed with an aperture extending therethrough, the cover-plate material contiguous to aperture being forced axially inwardly to form a circular counter bore having a sharp edge in upper portion of aperture and having nut and nut holder to secure same to cover.

Infusion Package and Method of Making Same, R. R. Baxter (to Standard Brands, Inc., New York, N. Y.). U. S. 2,498,197, Feb. 21. A tea bag which comprises a sealed web of filter material adapted to hold a quantity of tea, said web being highly permeable and formed of closely interlaced cellulosic fibres, fibres being bonded by lines of non-toxic, substantially odorless and tasteless, hot water-repellent lacquer.

Pressure-Sensitive Adhesive Tape, J. B. Martin (to The Kendall Co., Boston, Mass.). U. S. 2,498,338, Feb. 21. A pressure-sensitive tape comprising a flexible backing material bearing on a surface thereof a coating of a pressure-sensitive adhesive consisting of a modified factice composition.

Closure, T. H. Risk, Franklin, Mich. U. S. 2,498,345, Feb. 21. A closure comprising a plug adapted to be tightened in an opening of a container by a turning motion having a spring plate and a nut fastened together as a unit.

Bottle-Capping Machine, A. C. Naccarato and R. E. McCauley, Los Angeles, Calif. U. S. 2,498,443, Feb. 21. A bottle-capping device comprising an outer cylinder having concentric bores of different diameters and an internal seat formed between bores, a second cylinder having an outwardly extending peripheral flange about its upper end disposed in the enlarged bore in first-mentioned cylinder and having means for crimping a cap on a bottle neck when second cylinder and a bottle are moved.

Article-Labeling Machine, P. E. Fisher and E. A. Ardell (to Hartford-Empire Co., Hartford, Conn.). U. S. 2,498,667, Feb. 28. In a labeling machine, a conveyor for the article to be labeled and means for positioning a label in the path of the propelled article comprising a continuously operating suction conveyor extending at right angles to the plane of article conveyor and adapted to support a label by contact with front surface thereof and means for stopping the movement of the label with respect to the suction conveyor.

Apparatus for Handling Stacked Containers, W. E. Miller (to Brogdex Co., Pomona, Calif.). U. S. 2,498,740, Feb. 28. Apparatus for handling stacked boxes or the like, which comprises a stack-receiving and discharging unit mounted for swinging movement about a horizontal axis between a relatively upright stack-receiving position and a reclining position for stack discharge.

Self-Sealing Jar Closure, C. Wadsworth, Blackfoot, Idaho. U. S. 2,498,930, Feb. 28. (45% to F. Young, Idaho Falls, Idaho). A jar having a sealing lip at its open end, a closure comprising a resilient channel-shaped sealing gasket yieldingly embracing the sealing lip and including inner and outer annular flanged portions, a channeled attaching strip embracing sealing gasket and including inner and outer annular flanged portions.

Display Sign for Stacked Merchandise, M. D. S. Johnson, (to Staley Milling Co., Kansas City, Mo.). U. S. 2,498,956, Feb. 28. A display sign for filled, fabric sacks of merchandise disposed in stacked relationship, said sign comprising a relatively stiff polygonal panel adapted to have advertising indicia placed on one face thereof and having an apron extending laterally from the opposite face of panel, proximal marginal edges of the panel and apron, respectively, being coextensive and stitched together.

Bottle Carrier, W. M. Bassichis (to Convenient Carrier Corp.). U. S. 2,498,126, Feb. 28. A bottle carrier comprising a pair of U strips arranged to form a rectangular band designed to encompass a plurality of bottles, a cradle affixed to and depending from the end walls thereof for the support to the base portions of the bottles, the free ends of U strips being bent inwardly and laterally and constituting rectangular guideways.

Receptacle Filling Device, A. J. Lippold (to Cherry-Burell Corp., Chicago, Ill. U. S. 2,499,149, Feb. 28. In a device for filling containers from an apertured reservoir, a valve plug, means for supporting plug below aperture in reservoir and means including a support spider having a central element located centrally with respect to aperture in reservoir.

Bag-Type Container and Closure Therefor, F. Lobl, Middleboro, Mass. U. S. 2,499,150, Feb. 28. A container having two generally oppositely disposed wall portions movable relatively toward and from each other, one of wall portions having a mouth opening therein.

Shaker Dispenser, R. W. Hoag, Melrose, Mass. U. S. 2,498,313, Feb. 28. A commodity container comprising a rectangular section of material corrugated to form a series of alternate parallel ridges and recesses, each of the ridges on one side of corrugated material having a transverse cut intermediate the ends of the corrugations and having a relatively flat backing section of material superposed upon and adhesively secured to the material forming said recesses forming a container with a plurality of parallel pockets.

Carton, J. A. Zinn, Jr., Chicago, Ill. U. S. Re: 23,204, March 7. A blank comprising a flat sheet having a first panel, a second panel, a third panel, a fourth panel and a connector section, said panels and connector section being divided from each other by crease lines, connector section adapted to lie flatwise against first panel to provide a rectangular tube.

Container with Pouring Throat and Connecting Dispensing Opening, G. C. Reid and S. S. Jacobs (to American Can Co., New York, N. Y.). U. S. 2,499,416, March 7. A container for liquids comprising, in combination, a body with end closure secured to body and having a curved edge closely adjacent and partially surrounding a dispensing opening formed in the end closure.

Magnetic Can-Turnover Mechanism, H. Schmidt (to American Can Co., New York, N. Y.). U. S. 2,499,422, March 7. A turnover mechanism for inverting magnetizable containers and other magnetizable articles, the combination of a magnet and a turnover member rotatable around said magnet and engageable with a container and revolving it on and around said magnet from one position into another position.

Box-Sealing Machine, C. Christiansen, Swampscott, Mass. U. S. 2,498,461, March 7. A device for sealing under pressure folded glued flaps of box blanks, having a rotary press with an arcuate pressing surface, a rigid pressure-resisting frame, means for guiding press in an undeviating rectilinear path through frame.

Package-Filling Device Connected to a Conveyor Mounted in a Channeled Guide, A. B. Filbert, Baltimore, Md. U. S. 2,499,479, March 7. In a bag-filling machine having a hori-

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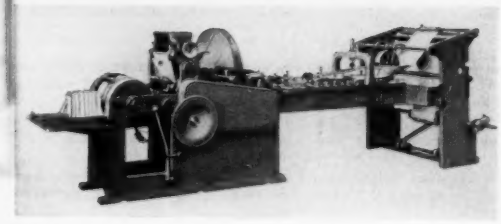

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U.S. Patents Digest

zontally movable conveyor and a channeled guide for the conveyor, means for supporting a bag in upright position comprising a bottom plate slidable on guide, means securing plate to conveyor, a bag-distending member and a means supporting bag-distending member above and from plate.

Receptacle, H. L. Reitzes, Philadelphia, Pa. U. S. 2,498,528, March 7. In a closure for the flattened tubular end of a package, a sealed portion extending transversely across the end and having an inner boundary with part thereof spaced inwardly from the transverse terminus and another part thereof spaced inwardly at a lesser distance from the terminus and having a weakened portion defining a sealed band of reduced width accessible and readily breakable after severing of tab for access to the interior.

Carton, G. Rottman, Brooklyn, N. Y. U. S. 2,499,780, March 7. A flat and bendable carton blank comprising a central polygonal bottom-wall portion and upstanding-wall portion, each upstanding-wall portion being integral with bottom-wall portion, the edges of the inner layer adapted to be bent downward to form an integral flange fitting snugly against the inner side walls of the box.

Carton-Assembling Machine, J. A. T. Leask, Detroit, Mich. U. S. 2,499,960, March 7. A device with vertical support, a plurality of vertical pedestals radially positioned for rotation about support, a clamping device secured to each pedestal, an arm extending vertically from clamping device, with lever pivoted to arm, and having springs through transverse plates which move toward the container engaging position.

Single Whole-Fruit Feeder, J. M. Hait (to Food Machinery & Chemical Corp., a corporation of Delaware). U. S. 2,500,030, March 7. In combination: a rotor, a series of citrus extractor units spaced circumferentially on said rotor, each unit including upper and lower whole-fruit compression cups spaced vertically at a delivery point to receive a single whole fruit in lower cup.

Adhesive Transfer Tape Dispenser, K. J. Ptasnik, New York, N. Y. U. S. 2,487,061, Nov. 8. A device comprising means for holding a supply of endless adhesive tape, means carrying indicia, means for joining together in superposed position adhesive tape with the adhesive layer thereof facing the indicia on said carrying means, means for exerting pressure between adhesive tape and indicia-carrying means to transfer indicia onto tape.

Applier for Applying a Length of an Adhesive Tape to a Surface, F. A. Deutsch, New York, N. Y. U. S. 2,500,157, March 14. An applicator for applying a length of an adhesive tape to a surface, comprising in combination: carrying means including a body and a support for said body movably connected with each other, holding means on carrying means for rotatably holding a supply roll of adhesive tape, an applying roller rotatably arranged on carrying means in a position for being engaged at a portion of its circumference by tape coming from such supply roll.

Self-Sealing Fuel Container Having a Sealing Layer Composed of a Textile Fabric Coated with a Mixed Cellulose Ester, W. A. Dickie and G. Rudorf, (to Celanese Corp. of America). U. S. 2,500,158, March 14. A self-sealing container for gasoline comprising rigid inner and outer walls unaffected by gasoline and between them a sealing layer comprising a textile fabric containing a substantial proportion of resilient fibres and coated with a mixed cellulose ester of acetic acid and a higher fatty acid.

Container and Closure Means Therefor, C. H. Koeppel (to Scovill Mfg. Co., Waterbury, Conn.). U. S. 2,500,363, March 14. A container having an elongated head formed of flexible material and provided with an opening therein, sealing means located on the inner face of opening and presenting interfitting sealing surfaces extending parallel to head top.

Ventilated Fruit Cushion, B. M. Hoblick (to Blake, Moffitt & Towne, San Francisco, Calif.). U. S. 2,500,412, March 14. A cushion for supporting fruit and the like in a rectangular fruit box having a bottom comprising a rectangular horizontal pad of relatively loosely packed shredded material, an envelope enclosing said pad formed with openings in the upper side thereof and along two of its lateral sides that are along two of the opposite edges of the pad.

Package for Fish Lines, R. B. Worden, Granger, Wash. U. S. 2,500,446, March 14. As an article of manufacture, a

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U.S. Patents Digest

(Continued)

fishing-line package comprising a plurality of separate, spaced coils formed from a single continuous line, an envelope for each coil, a coil in each envelope, each envelope having an opening in the center of one side wall and a flap-covered edge opening, the flap being connected with the opposite side wall, the line of one coil leading from the outside thereof to the center of another coil.

Filling-Machine Drive, G. J. Meyer (to Geo. J. Meyer Mfg. Co., Cudahy, Wis.). U. S. 2,500,465, March 14. In a filling machine, a rotary filling table adapted to carry containers thereon and having a gear adjacent to its periphery, a pair of laterally spaced tubular vertical shafts having respective pinions meshing with table gear to drive said table.

Article-Dispensing Device, W. S. Connel (to The Bastian-Blessing Co., Chicago, Ill.). U. S. 2,500,664, March 14. A bottle-dispensing apparatus comprising a rotatably mounted cylinder having a plurality of vertical openings therein, each for receiving a vertical stack of bottles, a conical skirt attached to the bottom of cylinder, a plurality of arm members pivotally mounted adjacent the center line of cylinder below conical skirt, each having an upstanding projection thereon for retaining the lowermost bottle of each of said stacks.

Case Packer, F. Nakaura (to Hawaiian Pineapple Co., Ltd., Honolulu, Territory of Hawaii). U. S. 2,500,699, March 14. In a machine for filling cases or the like having a magazine section and a discharge section served by the magazine section, the units to be introduced into the case or the like being fed from the magazine section to the discharge section by gravity, the combination with means for halting the flow of the units during the discharge operation, said means compensating for the time lag which would otherwise obtain due to the inertia of the units.

Bag Support for Filling Machines, W. R. Peterson (to St. Regis Paper Co., New York, N. Y.). U. S. 2,500,768, March 14. In a valve-bag filling device, an approximately horizontal filling tube adapted to enter the valve of a bag, a pivoted support for the bottom of a bag being filled through said spout, manually operable means located above the filling tube and a linkage for operatively interconnecting the manually operable means with bottom support for adjusting the distance of support from tube.

Gate Arrangement for Controlling the Passage of Material into Bags, W. R. Peterson (to St. Regis Paper Co., New York, N. Y.). U. S. 2,500,769, March 14. In a valve-bag filling apparatus comprising a centrifugal propeller mounted upon a horizontal axis, a housing for the propeller having a substantially horizontal discharge passage tangential to the bottom of the propeller and a filling tube adapted to enter the valve of a bag and to receive material from said passage, said housing being provided with a slide-away across the passage, said slide-away being open at the bottom and closed at the sides and top.

Packaging Machine, J. W. Hall, Edmonston, Md., and L. A. Cline, Washington, D. C. U. S. 2,500,819, March 14. In a packaging machine, a former comprising a pair of relatively movable members open at one end and adapted between them to receive materials to be compressed and packaged, a sack closed at one end and having its open unobstructed end engaged over the open end of former when the members thereof are in compressing position.

Carrying Device, H. McMillan (to Cohoes Envelope Co., Inc., Cohoes, N. Y.). U. S. 2,500,848, March 14. A package carrier having front and back walls, means joining the back and front walls together and allowing for their relative movement toward and from each other, an extension including a locking portion on the back wall projecting upwardly beyond the upper edge of the front wall, a handle member projecting upwardly beyond the upper edge of front wall and provided with a finger opening therethrough.

Package-Crimping Machine, L. L. Salfisberg (to Seal-Craft, Inc., Newark, N. J.). U. S. 2,500,874, March 14. In a machine of this type, a base member having upper and lower spaced liquid-containing chambers connected by communicating passageway, a piston for connection to mechanism to be controlled and reciprocable in passageway and extending into both chambers, a longitudinal bore in piston and a lateral port leading outwardly from bore and a needle valve for controlling flow of liquid through said bore and port.

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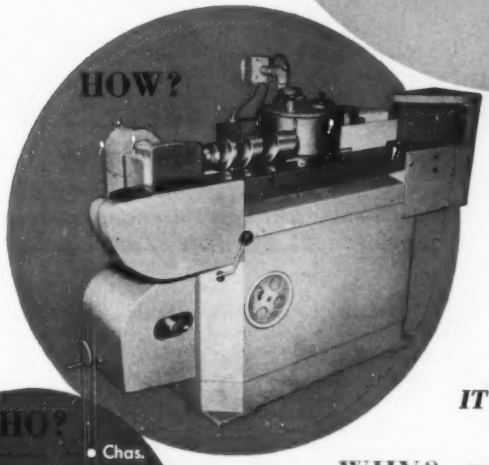

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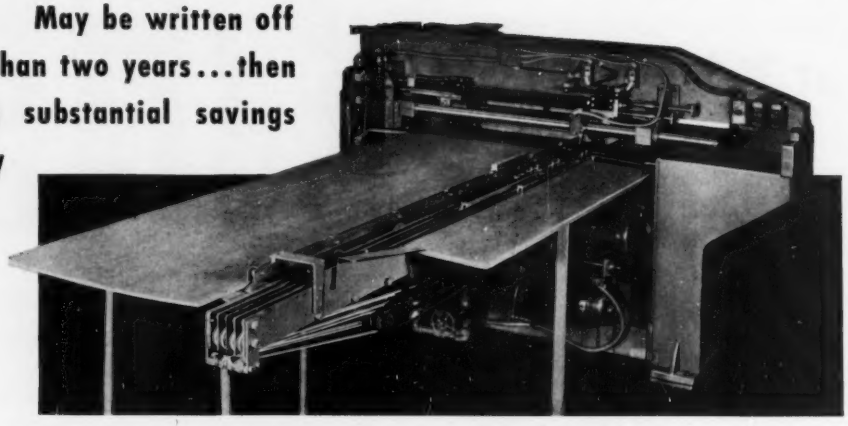

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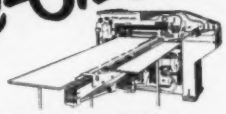

Box Machine

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•MANUFACTURERS' LITERATURE•

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COLLAPSIBLE METAL TUBES. Catalog outlining versatility and advantages of Wirz collapsible tubes and small plastic specialties. Illustrations and specifications for guidance in developing modern, attractive, convenient, safe packages. 8 pages. A. H. Wirz, Inc. (5-700)

CAN CATALOG. Information helpful in the selection of the style and type metal containers best suited to individual needs. Included is a section giving specifications and data on the basic types of General Line Crown cans and fittings. 62 pages. Crown Can Co. (5-701)

FABRICATION OF POLYSTYRENE. Guide summarizing recommended technique for machining and working with polystyrene. It covers the use of coolants, sawing, turning, milling, drilling, threading, tapping, etc. Pocket-size. Plax Corp. (5-702)

LUSTREX LATICES. Chemical and physical nature, compounding, and applications of Lustrex Latices which are stable aqueous dispersions of polystyrene, are given. Data sheet, explanatory charts, and price schedule is included. Monsanto Chemical Co. (5-703)

MOTOAIR PUMPS. Given are the specifications, features, and advantages of Motoair pumps used in connection with packaging, paper handling, liquid handling machines, etc. A short résumé along with several illustrations is included on the operation of the pump. New Jersey Machine Corp. (5-704)

AUTOMATIC PACKAGING MACHINES. This illustrated 8-page booklet presents the specifications, uses and advantages of the Transwrap machine Model B, designed to package bulk items, and the Transwrap machine Model A, designed to package individual items and small quantities. Transparent-Wrap Machine Corp. (5-705)

TAPE PRINTER. Bulletin exemplifying the uses & advantages of the Markem pressure sensitive tape printer. Information as to ink, weight and print is also presented. Markem Machine Co. (5-706)

HEAT SEALABLE PACKAGING MATERIAL. Samples of Acmeflex, hermetically heat sealable packaging material, are given throughout this booklet. Prices and specifications are also included. Acme Backing Corp. (5-707)

AUTOMATIC ENVELOPING. The Bartelt enveloping machine, its uses, specifications, features, and many advantages are described in this folder. Bartelt Engineering Co. (5-708)

ENAMEL PAPER. With the aid of photographs, this folder demonstrates the results which can be attained on Champion Satin Refold Enamel. The Champion Paper and Fibre Co. (5-709)

GLASS CONTAINERS AND CLOSURES. A 22-page illustrated catalog of stock glass containers and closures. W. Braun Co. (5-710)

METAL CONTAINERS. A four page folder in full color showing the examples and specifications of various containers made by the Olive Can Co. (5-711)

ROCKET ROTOGRAVURE. Complete specifications and photographs of Rocket Presses in three standard sizes; 20", 30" and 40" printing widths. The Inta-Roto Machine Co., Inc. (5-712)

SCOTCH TAPES. Twenty-four page illustrated booklet showing the many uses of pressure sensitive tapes. Minnesota Mining & Mfg. Co. (5-713)

NON-STAINING PROTECTIVE WRAP. Descriptive pamphlet and sample of new "Thilco-Tuf" Duplex Protective Wrap with a non-staining, highly puncture-resistant blond elastic laminant. Thilmany Pulp & Paper Co. (5-714)

KIMPAK FLOAT PACKAGING. Illustrations of 30 packages employing Kimpak creped Wadding for interior cushioning; shows how the material is used in surface protection, blocking and bracing and refrigerated packaging. Kimberly-Clark Corp. (5-715)

PRINT FORMING AND WRAPPING MACHINE. Two color folder gives outstanding features of this combined forming, wrapping, and cartoning machine. Information includes complete specifications. Lynch Corp. (5-716)

SLITTER AND REWINDER. Liberally illustrated catalogue fully describes this slitting and rewinding machine. Charles Beck Machine Corp. (5-717)

THE CASE FOR THE SET-UP BOX. Reprint of an 8-page article from the April 1949 issue of MODERN PACKAGING giving the practical advantages of the set-up box. Walter P. Miller Co. (5-718)

WHIZ-PACKER FILLING MACHINES. Folder describes several models of this filling machine, made to fill all types of containers up to 6 oz. Frasier & Son. (5-719)

TUBES. Sheffield process tubes in a range of sizes and in various metals are illustrated and described. Also presented are types of openings, caps, applicators, etc. and information on tube filling. 24 pages. The Sheffield Tube Corp. (5-720)

PHARMACEUTICAL EQUIPMENT. The features, specifications, illustrations and other information on various automatic machines for washing, filling and sealing of ampuls and vials is included. 6 page brochure. PerfeKtum Products Co. (5-721)

CHEESE IN PLIOFILM. Illustrated 62-page brochure giving detailed information on how to cure and package natural cheese in Pliofilm, rubber hydrochloride film. The Goodyear Tire and Rubber Co. (5-722)

COLOR GUIDE FOR NEWS INKS. Four pages with 30 color specimens. Includes comic, process and run of paper colors with suggestions for color combinations. International Printing Ink Div., Interchemical Corp. (5-723)

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SAVINGS IN SHIPPING. Given are specifications and illustrations on steel strappers, stretchers, sealers, steelstrap accessories, unit-load equipment and accessories, and strapping. Information given on making use of this equipment. 32 pages. Acme Steel Co. (5-724)

PACKAGING WITH RIBBONS AND VELVETS. Folder containing swatches of various velvets and ribbons available in a wide range of colors in assorted colors. Martin Fabrics Corp. (5-725)

CHAIN CONVEYOR. Double-Flex chain conveyors used for economical and prompt handling of cases, cartons, boxes, and cans are discussed in detail. Illustrations included. 16 pages. Island Equipment Corp. (5-726)

ELECTRONIC COUNTERS. Article dealing with the control of machines with electronic counters. Illustrations and diagrams explaining the text are included. 6 pages. Potter Instrument Co. Inc. (5-727)

WRAPPING MACHINE. Given is operational information, capacity, specifications, accessories available, and other information on the new Wrap-King multi-form wrapping machine. Articles wrapped by this machine are illustrated. 4 pages. Wrap-King Corp. (5-728)

PERMASLIP FOR HEAT-SEALING EQUIPMENT. Information on the application and economy of use of Permaslip, a heat-etable silicone that keeps plastics, wax and most other materials from sticking to heat sealing irons and bars. Mailing stuffer on Permaslip is included. Dow Corning Corp. (5-729)

PRINTING AND PAPER CONVERTERS. This folder gives complete specifications, features, and other information about five machines—the bag machine, rewinder and slitter, four color anilox press, two color anilox press, and anilox press. Manhasset Machine Co. (5-730)

VIBRATORY FEEDERS. Detailed information is given in this 14-page brochure on various models of vibratory feeders as produced by Syntron Co. (5-731)

CONTINUOUS BAND SEALER. The Doughboy continuous band sealer, adaptable to heat sealing a wide range of films, is discussed with its features, specifications, and operational information. 4 pages. Illustrated. Doughboy Industries, Inc. (5-732)

FIBERGLAS PRODUCTS. Information on testing thermal and acoustical materials, textile products, electrical insulation products, and quality control, 32 pages. Owens-Corning Fiberglas Corp. (5-733)

MULTI-CORD BELTING. Catalog section on Multi-Cord belting, recommended for installations where heavy loads, high speeds, small pulleys and limited takeup impose tremendous strain on the belt. Construction is pictured and described, advantages cited and data outlined. B. F. Goodrich Co. (5-734)

PARAFFIN WAX. Parafflex 970, a paraffin wax formulation developed for superior flexibility without the necessity for using additives, is discussed. Specifications are included. Boler Petroleum Co. (5-735)

EXPENDABLE PALLETS. Manual offering valuable information on the use of Power Packs in shipping and storing roll and sheet paper stock. Palletizing and loading procedures are described through the use of actual case histories. 32 pages. Addison-Semmes Corp. (5-736)

UNIT-PACKETS. Information given on Unit-Packets used for sugar. Samples are included. Unit-Packet Co. (5-737)

NON-WARP GLUE. The versatility, uses and instructions for use, etc., of Flatack nonwarp glue (a scientifically compounded cake form animal base adhesive) are given. Paisley Products, Inc. (5-738)

WOOD BOX PRINTING MACHINES. Bulletin giving operational information and illustration of various custom-built wood box printing machines as produced by Industrial Marking Equipment Co. (5-739)

SEAMERS. Discussed in detail are seamers for improved seaming of tin tops and bottoms for fibre can bodies. Illustrated. M. D. Knowlton Co. (5-740)

OPEN POCKET FILLERS. The features of Elgin high speed open pocket fillers built for durability and dependability are given along with an illustration of the machine. Elgin Mfg. Co. (5-741)

SHEETER GLUER MACHINE. Wrapping and banding methods with the Corley Miller Sheeter-Gluer are illustrated and described. Specifications and features of the machine are also included. Amsco Packaging Machinery, Inc. (5-742)

POLYSTYRENE. Technical bulletin containing table of properties of Koppers general purpose Polystyrene 7 and Koppers lubricated Polystyrene 8. Koppers Co. (5-743)

PACKAGING MACHINERY. Twelve pages of illustrations of carton forming and wrapping machinery. Descriptions include specifications for each unit and standard machine floor plans. Pneumatic Scale Corp., Ltd. (5-744)

SELECTROL AUTOMATIC CHECK-WEIGHER. Electronic automatic check-weighing machines to fit into production line listed and pictured in 4 page folder. The Exact Weight Scale Co. (5-745)

LIQUID FILLING MACHINES. Literature shows three types of filling machines, the products these machines handle, and the names of several users of the machines. Packer Machinery Corp. (5-746)

VISQUEEN FILM. Booklet describes characteristics, properties, and uses of Visqueen polyethylene film. The Visking Corp. (5-747)

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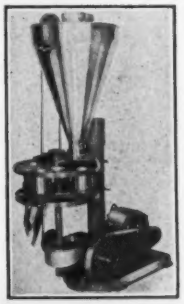

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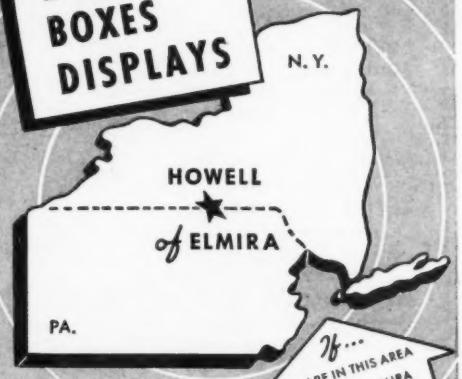

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Netherlands exhibit

Developments of far-reaching importance to the American packaging field are expected as a result of Holland's greatest packaging exhibition, held March 21-31 in connection with the International Trade Fair at Utrecht. Over 200,000 business men from all parts of Europe attended the fair and a good portion of them visited the exhibit of more than 1,000 American packages and displays provided by 35 American suppliers. The exhibit was arranged by Charles A. Breskin, publisher of MODERN PACKAGING, at the request of the Netherlands Ministry of Economic Affairs, specifically to acquaint Netherlands packagers with the type of package design that sells in America, with an eye to increasing Dutch export business to this country.

Mr. Breskin also delivered three lectures to groups comprising about 1,500 persons representing p·ckage designers, package suppliers and package users in the Netherlands. He pointed out that contract packaging facilities are available in this country, as well as high-speed equipment and the better types of materials unobtainable in Europe.

As a result, one large Netherlands packager—who has been importing bottles from this country, filling them in Holland and shipping them back again to the U.S.—is considering the possibility of shipping his product in bulk and having it bottled here. Similar arrangements are under way for producers of cocoa, cheese, bulbs and other typical Dutch exports.

The exhibit will be circulated by the Netherlands Government to other expositions to be held later this year at Delft, Amsterdam and Rotterdam.

"HOW DOES AMERICA PACKAGE?" asks sign over U.S. exhibit at Utrecht.

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(SPECIMEN PERFORATED DATE)

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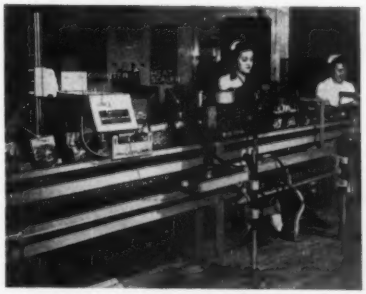


View shows PHOTO ELECTRIC PERFORATOR Code-Dating potato chip bags after passing through heat sealer.

COUNTS AS IT CODES

✓ NOTHING TO ATTACH . . . NO OPERATOR NEEDED

✓ PERFORATES NUMBERS OR LETTERS THROUGH SEALED PORTION OF BAGS

✓ PERFORATED DATES ARE EASY TO READ . . . NO SMEARY INK TO CONTEND WITH

✓ EASILY MOVED FROM ONE LINE TO ANOTHER

WRITE FOR INFORMATION

SALES AND SERVICE IN ALL PRINCIPAL CITIES

AMERICAN PERFORATOR CO.

Established 1910

625 W. JACKSON BLVD. CHICAGO 6, ILLINOIS

Packaging show breaks all attendance records

All attendance records were broken at the American Management Assn.'s 19th Annual National Packaging Exposition held April 24–27 at Chicago's Navy Pier when final unofficial count of registrations showed that 19,100 visitors had filed through the nearly three miles of exhibits. The previous high was 16,100 at Philadelphia in 1947. This year's Conference drew 1,000 registrations.

This issue of MODERN PACKAGING was going to press as the AMA meeting got under way. A complete report of the exposition and conference, including detailed abstracts of talks made during the five conference sessions, will appear in the June issue.

The number of exhibitors in the 19th annual exposition reached 252, setting a new record. Exhibits bracketed all phases of packaging materials and equipment, dramatically presented by means of actual demonstrations in many instances. Numerous exhibits mirrored the steady growth of self-service merchandising, not only for such items as fresh fruits and vegetables, candy and packaged foods, but also for small-hardware products and other "nuisance" items.

A preliminary inspection of the exhibits, covering approximately a mile and one-half of space, emphasized that packagers are on the alert for equipment and materials which will hold packaging costs to a minimum without sacrificing such basic virtues as protection and convenience. Automatic cellophane wrapping and labeling of such items as paper napkins, in former years distinctly a manual operation, epitomized this trend.

A special exhibit attracting wide interest was the Packaging Hall of Fame, consisting of the original art work for the cover illustrations featured in MODERN PACKAGING'S continuing series of articles devoted to some of America's oldest and most famous packaged products. Framed and individually lighted in a spacious, gallery-type exhibit, the illustrations were flanked by the actual packages which have been presented during the past 16 months in this series.

Another added exposition feature was the Packaging Theater, in which selected films from exhibitor firms, covering various types of packaging equipment and materials, were shown continuously on a regular schedule during business hours.

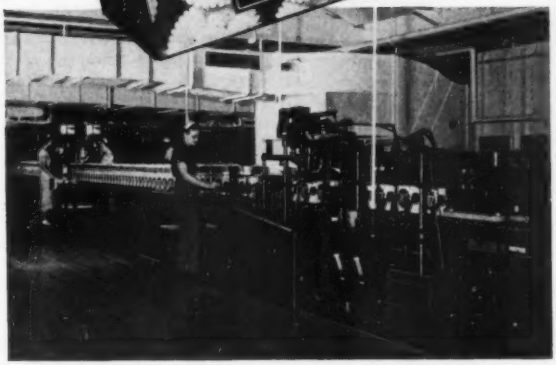
Opening-day attendance at the conference sessions was approximately 550, surpassing the first day's turnout at last year's meeting. J. D. Malcolmson, AMA vice president in charge of the Packaging Division, served as chairman of the initial session on Monday morning, with "The Packaging Function in the Company Organization" the general theme. "Increasing Package Effectiveness at the Retail Level" was the topic of the afternoon session, presided over by Jack C. Griffin, Consolidated Grocers Corp. Scheduled for presentation at the three remaining sessions were "How General Electric Tackles Its Packaging, Packing and Shipping Problems," "Reduction of Loss and Damage in Shipping" and "New Uses for Plastics in Packaging."

The easy opening RITZ CRACKERS carton is handled on PNEUMATIC MACHINES

PACKAGING of such a tremendous family favorite as RITZ CRACKERS is in the nature of a colossal assignment. You've got to have good protection for such a perishable product. You've got to have a carton that opens easily, that's attractive—and strong enough to stand up under plenty of handling. And you've got to turn them out in a hurry!

It's no trick at all for National Biscuit Company and their Pneumatic packaging equipment. And it's the same story with leading producers of all kinds of packaged products the country over. You'll find more of them using Pneumatic machines than any other kind. Why? Because of their smooth, speedy, trouble free performance —and because, when all is said and done, the money-saving efficiency of Pneumatic machines means—"lower cost per container".

PNEUMATIC SCALE CORP., LTD., 82 Newport Avenue, Quincy 71, Massachusetts. Branch Offices in New York, New York; Chicago, Illinois; San Francisco and Los Angeles, California; Seattle, Washington.



Installation of Pneumatic top closure equipment at new Houston Bakery of National Biscuit Company

POWDER FILLERS

VACUFLOW POWDER FILLING MACHINES are now manufactured and sold by Pneumatic Scale Corp., Ltd. Rotary and single head units are available for accurate, dustless handling of freeflowing and non-freeflowing materials. Speeds range from 20 to 300 per minute. Pneumatic invites your inquiries on powder filling problems.

PNEUMATIC PACKAGING AND BOTTLING MACHINERY

The SEALTITE SYNCHROMATIC

Produces a *BETTER PACKAGE* from a Standard Paper Bag at Big Savings

Write for Complete Information

CONSOLIDATED PACKAGING MACHINERY CORP.

BUFFALO 13, N.Y.

Labelling Problems?

ANSWER:

The NEW LABEL CHIEF

- Perfect Registration
- Quick Changeover to Wide Range of Label and Container Sizes
- "Glue-Sprays" Labels or Moistens Pre-gummed Labels
- Automatic & Semi-automatic Models

Write for literature!

VAC-SPRAY Machine Corp.

609-22nd Ave. N. E. Minneapolis 13, Minnesota

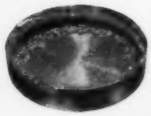
SYNTRON

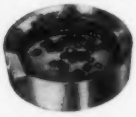
"Vibratory"

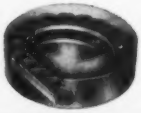
PARTS FEEDERS

Speed up the processing of those "hard-to-handle" parts by automatic machines, assemblers, inspectors, etc.

Vibration moves the parts up and around the spiral track at the desired speed—and selectors orient the parts to their desired discharge position.







Send us samples of your most troublesome parts—our Engineering Department will be glad to make tests and submit recommendations and quotations—write to

SYNTRON CO.

250 Lexington Ave. Homer City, Pa.

Standardization

(*Article continued from page* 85)
ment of the merchandise to the stores.

The old miscellaneous packaging was not uniform in appearance, lacked identity as a Butler Bros. product, did nothing to create an impression of quality for the contents and offered a flexibility of use to the point where it fostered wrong packing quantities. The costs of this type of packaging were necessarily high.

The new, standardized boxes insure uniform appearance. They are immediately available from a convenient stock and, when necessary, can be shipped in substantial quantities in a minimum of shipping space at the lowest rate. They are all of the same style, have an attractively printed two-color design on the full-telescope cover, with a labeling area on the end of a standard nature to facilitate stock identification. The sources are able to store substantial quantities in a confined space, which insures a constant supply on hand for the proper packing of the goods. This eliminates errors in the packing of the proper quantities of the merchandise because the right box for the goods being packed is designed to hold only the correct amount of the product to be packaged.

The detail that the merchandise buyer must transmit to the source is reduced to two facts: (1) the quantity of merchandise to be packed per box; (2) the code number of the box in which this merchandise is to be packed so that the right box will be procured from the stock.

A further important factor is that the cost of these boxes is less than that of the comparable set-up style with a printed cover wrap. This is due in part to the advantage of buying in larger combined quantities, incorporating the requirements of all sources for months in advance. The fact that the cost of these boxes is established and known simplifies the merchandise buyer's routine when negotiating with the sources for new items. Also, where standard case packaging for shipment is required, these new boxes make possible the standardization of the shipping container in the same manner at a further savings.

Basis of the new box-cover design is a series of buff stripes on white patent-coated board, with the Butler Bros. name boldly presented in a royal blue block. The brand name used on

PAPER that gets around

Brown and serve . . . A new miracle bakery product has taken the country by storm. Hot rolls . . . just like home-made but with all the work done for you except the last seven minutes in your own oven. Yes, Rhinelander Greaseproof protects this fine product; our Snowdrift glassine labels it.

About a billion glassine patches on window envelopes carry Rhinelander paper into and out of countless offices and homes each year. In one form or another our papers come into contact in a highly useful manner with most people in America many times daily.

Jet planes and tanks . . . machine guns and all the vast paraphernalia of defense require a million and one replacement parts which must be protected from rust and corrosion until used. Rhinelander's special paper for ordnance wrapping contributes mightily to the solving of this important problem.

Glassine and Greaseproof the functional papers that do so many tough jobs well.

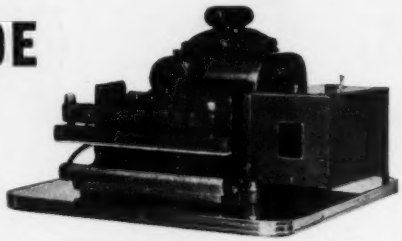
IN THE LAND O' LAKES • RHINELANDER, WISCONSIN

WRAP-ADE

MODEL B-12

THERMAL IMPULSE

TYPE SEALER



This unique heat sealing machine effects a positive, liquid-tight seal on Polyethylene, Vinyls, Saran and other heat sealing plastics. The Wrap-Ade Model B-12 is simple in operation and requires no sensitive, difficult-to-adjust thermostat controls. There is only one dial which sets the machine for any gauge material.

When set up over a conveyor system, this machine gives sealing speeds on polyethylene bags which have heretofore been impossible with a single operator.

Write today for full information on this and other Wrap-Ade Packaging Machinery

wrap-ade

MACHINE CO., INC.
83 VALLEY STREET
BELLEVILLE, NEW JERSEY
PHONE—BELLEVILLE 2-6150-1

See What They're Packing in

HOWARD-SEAL

Controlled Polyethylene

PLASTIC BAGS

ICE CUBES!

...and scores of other perishable items!

Just think what it could do for YOUR product!

- *Moisture-proof*
- *Fracture-proof*
- *Unaffected by temperature changes*

Don't confuse Howard-Seal with any other film. Howard-Seal is controlled as to uniformity of thickness, size and sealability.

Sold by leading paper distributors.

WRITE for Free Samples, full information and low prices.

HOWARD PLASTICS
Dept. D-4 Council Bluffs, Iowa

lingerie, "Ruth Barry Fashions," is also presented in royal blue, with embellishments on the initial "F," which appears in white outlined with blue. It will be noted that end labeling has been completely standardized.

The establishment of a program of this nature was, according to Mr. Koehler, not without its problems.

The development of the sizes of the boxes was a matter of prolonged study of the line of merchandise. The initial use of the boxes necessitated contacting many of the sources to arrange for the correct folding of the merchandise so that proper fit was maintained in the box. Many of the sources jumped right into the program and worked out the minor contingencies themselves. Labor factors in extra folding, or folding different from the conventional method, were overcome through experience.

After the routine has been in effect for a while it is found that the personnel revert to their previous dexterity and efficiency. Objections to the labor factor in setting up these folding-style boxes were prominent at first. However, by supplying the boxes in a form that enabled setting up with a minimum of labor time—about equivalent to the time necessary for separating a set-up box and cover—this factor was eliminated.

Consequently, with these minor contingencies worked out through experience in the use of the boxes, the receptivity of the program by the sources has been genuine and the benefits are shared by all concerned.

CREDIT: *Boxes, Empire Box Corp., Garfield, N. J.*

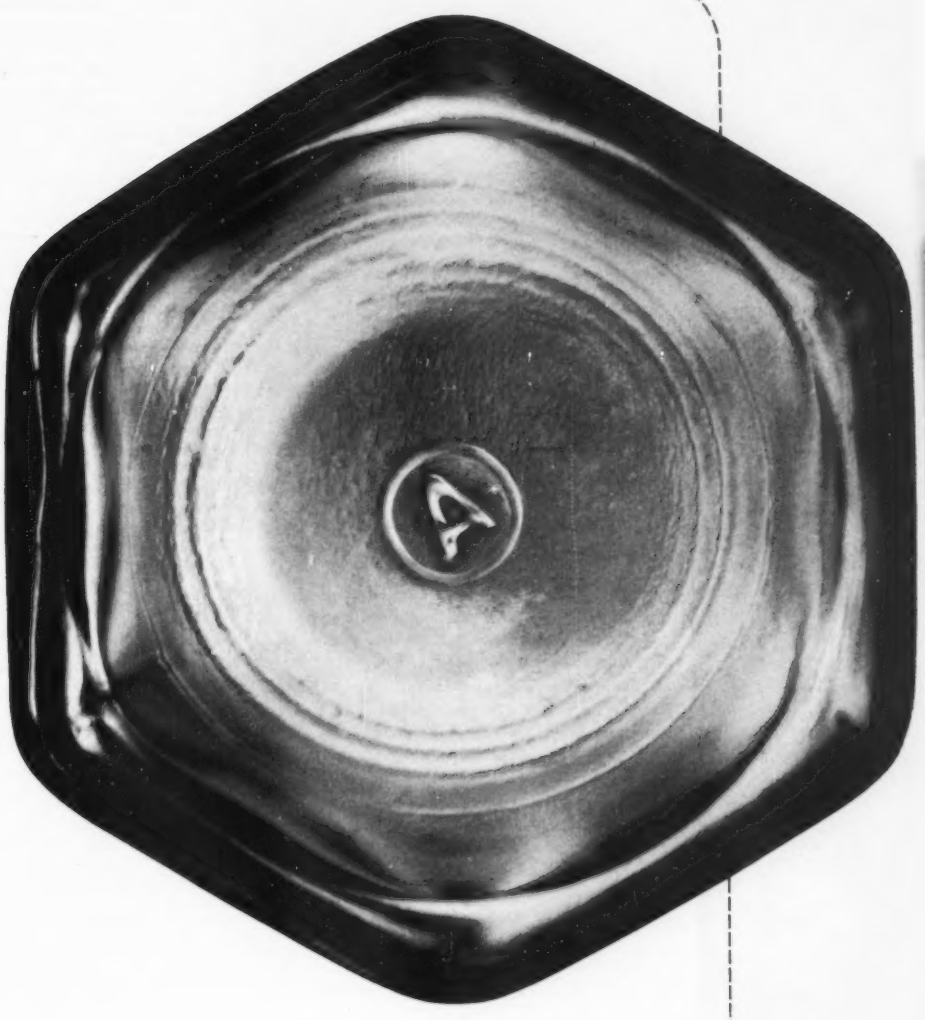
Gifts that win—

(*Article continued from page 77*)

a store elects. Some stores today are using elegantly printed aluminum foil wraps for this purpose.

Throughout the country there are also today several well-established gift-wrapping services for retail stores. The subscribers to these services receive, exclusively, one store to a city, custom-designed packages for special events throughout the year, including specially designed papers, ribbons and tie-ons, as well as a complete kit of ideas for promoting the packages. These gift-wrapping services will also send out demonstrators to show store personnel how to do the packaging. The special put-ups may be offered

The mark of good glass packaging design



For information see your Armstrong representative or write to Armstrong Cork Company, Glass and Closure Div., 2305 Prince St., Lancaster, Pa.

ARMSTRONG'S GLASS

Sealing Unlimited
...for LIFE of
CONTAINER and PRODUCT
TO CLOSE
TO OPEN
U-PRESS-IT
HERE
PRESS SIDES DOWN AND IN
SEALS OF APPROVAL
FREE... eight-page booklet in color, telling about the Upressit Cap . . . the seal winning customer approval the country over.
This book describes the ease and safety of sealing with Upressit Caps . . . explains how you can eliminate customer kickbacks from leakage . . . evaporation . . . staleness . . . flatness.
Highly illustrated, the book has a comprehensive chart of cap sizes with photographs of caps, overseals, and closing and crimping equipment.
Write today for your copy of "Seals of Approval."
UPRESSIT PRODUCTS CORPORATION
420 Lexington Avenue, New York 17, N. Y.
Name
Title
Company
Street
City Zone State
U PRESS IT
UPRESSIT PRODUCTS CORPORATION
420 LEXINGTON AVENUE NEW YORK 17, N Y

free by the stores with every purchase above a certain amount, or a store may make a small charge for the service, depending on the store's policy and arrangements with service groups.

The whole subject of gift merchandising is one that deserves very special study in today's packaging economy. Occasional gift-giving has become such a deeply entrenched habit in every-day American social activity that no manufacturer can afford to treat this phase of selling haphazardly. It is a specific segment of his market and he can cater to it specifically with the package. It is not difficult to count the additional sales that can be traced to gift packaging and to win those potential sales, the gift package requires ingenious planning. For 1950 this means superlatively attractive gift packages that give full value.

CREDITS: *1. Design of construction, Philip E. Wilcox, New York, and Richard E. Paige, Inc., New York; styling of logotype, Lucian Bernhard Studio, New York; carton, Shaw-Randall Co., Inc., Pawtucket, R. I. 2. Box, Geo. H. Snyder, Inc., Philadelphia, Pa., using Eastman Kodak's "Kodapak"; compact, molded by Majestic Molded Products, Inc., Long Island City, N. Y., using Catalin Corp. polystyrene. 3. Box, Douglas Young, Inc., Pawtucket, R. I.; sachet, A'Cadia Cosmetic Kit Co., New York; bottle, Swindell Bros., Inc., Baltimore, Md.; closure, Victor Industries, Inc., Brooklyn, N. Y.; compact, molded by Majestic Molded Products, Inc., using Catalin Corp.'s polystyrene; printing of bottle, Modern Decorating Co., West New York, N. J. 4. Box, Williams Bros. Paper Box Co., Inc., St. Joseph, Mo. 5. Case, Le Sonier, Inc., Cambridge, Mass.; box, Columbia Box Corp., Boston. 6. Fresher-Pak box, Allied Plastics Co., Los Angeles, using Monsanto's "Lustrex." 8. Box, Exclusive Paper Box Co., Inc., Chicago; "Crystallon" paper, Riegel Paper Co., New York. 9. Box, J. E. Sales Corp., Transparent Container Div., New York; acetate (Lumarith), Celanese Corp. of America, New York. 11. Box, Acetate Box Corp., Brooklyn, using Monsanto's "Vuepak"; Snowflake wrap, Gustave Rubner, Inc., New York; Carnegie lady bottles, T. C. Wheaton Co., New York. 13. Osnaburg dye-screened by Color-Craft, Inc., Seattle, Wash.; label, Security Printing Co., Seattle, Wash. 14. Carton, Warner Bros. Co., Bridgeport, Conn. 16 & 17. Box, Paragon Box Corp., Brooklyn, N. Y.; Bags, Accurate Flannel Bag Co., New York. 18. Carry-home carton, The Hinde & Dauch Paper Co., Sandusky, Ohio. 19. Box, Heminway Corp., Waterbury, Conn. 20. Carton, Robert Gair Co., Inc., New York. 21. Carton, Brooks & Porter, Inc.,*

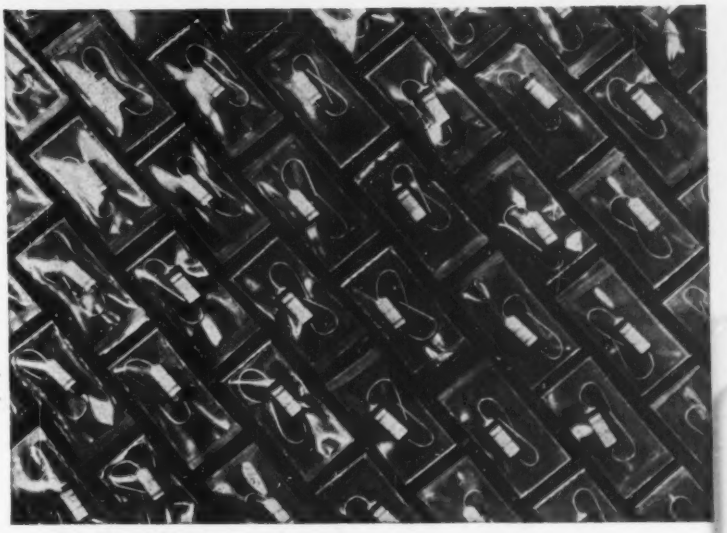
British Ministry of Supply Specify

'ALKATHENE' POLYETHYLENE FILM FOR PACKAGING CARBON RESISTORS

'ALKATHENE' film has been chosen to protect carbon resistors supplied by the Erie Resistor Co., Ltd., London, in accordance with a British Government specification. 'Alkathene' film replaces a complex wax dipped laminate. It provides:

1. A lighter weight package
2. A reduction in materials and labour costs
3. Superior performance
4. Transparency, enabling condition to be observed

The film envelopes were manufactured by Paper Goods Manufacturing Co. Ltd.



ICI

IMPERIAL CHEMICAL INDUSTRIES, LTD. ENGLAND

Faster Filling with the ANDERSON PORTABLE BAGGER

Designed to handle foods, confections, and numerous products in metal, plastic, wood, and rubber. Operates with a minimum of effort at a maximum speed.

Simple adjustment for height . . . tilting forward or backward enables the operator to set machine at easiest working position.

ROCKFORD Anderson BROS. MFG. CO. ILLINOIS

Stainless steel trough with capacity of 200 bags. Adjustable to bag sizes. Blower with filter keeps bags clean and free from foreign matter.

Send for Bulletin No. 5-29

ANDERSON BROS. MFG. CO.
ROCKFORD, ILLINOIS

mrm LIQUID FILLING MACHINES

Simple design for low cost maintenance! Precision engineered for high efficiency!

Model GR
GRAVITY FILLERS
5 to 12 Spouts

- For all types of foamy and still liquids.
- Spouts have *no* packing, eliminating danger of contamination.
- Minimum overflow and absolutely drip-proof.
- No pump—no motor—minimum number of moving parts.
- Fills all containers from fractional ounce to 2 gallons.
- Quickly adjustable for various size and shape containers.
- Furnished with distribution header.
- Production from 50 to 80 fractional ounces and up to 24 gallons per minute (based on water). Other sizes proportionately.

Write for catalog No. 22

mrm company, inc.
191 Berry Street
Brooklyn 11, New York

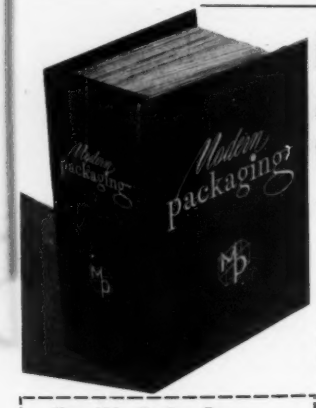
Manufacturers of a complete line of fully automatic and semi-automatic liquid filling equipment.

Squibb's MARKOCODER installation for imprinting permanent "print-quality" control numbers on the bottom of metal cans represents only one of many different cost-saving applications of this automatic "in-line" printing machine. Other MARKOCODER models imprint packages of GLASS, GLASSINE, CELLOPHANE, WAXED PAPER, PAPERBOARD, etc. on bottom, top or end—even recessed surfaces—and synchronize with production line speeds of 35–150 units per minute.

The MARKOCODER
operates in conjunction with carton sealer, cartoner, capper, filler, etc.

WRITE FOR DATA SHEET 10.0

ADOLPH GOTTSCHO, INC.
MACHINES TO MARK WHATEVER YOU MAKE
6 Terminal Rd., Hillside, New Jersey



For subscribers to MODERN PACKAGING.. this handsome 12 issue binder

Simplifies Filing
Makes Reference Easier!
Prevents Loss of Back Issues!

In at least one respect, our research shows, 'most all MODERN PACKAGING readers are birds of a feather—they hang on to back issues for dear life. Chances are you, too, find frequent occasion to look up an old issue for quick answers to current packaging problems.

And that's undoubtedly why we've been flooded with requests for a durable, easy-to-use binder to keep those back copies from disappearing, straying or becoming tattered and torn.

At long last we've come up with the answer you see in the picture. This binder is tough and rigid and built to last. It's covered with rugged, pebble-grained, blue Fabrikoid. It's handsomely gold lettered. It's riveted and reinforced with heavy metal. And, wonders of wonders, it's got a specially designed "lock-'em-in" device that makes the job of inserting issues fast and easy.

The cost . . . only $2.50 and worth every cent of it. Order this attractive and practical addition to your desk or bookshelf now. We'll mail yours out as soon as the order comes in.

Use this Order Form

Modern Packaging Magazine
122 East 42nd Street
New York 17, New York

Gentlemen:

Ship me immediately one MODERN PACKAGING binder. I am enclosing (☐ Check ☐ Money Order) in the amount of $2.50 as payment in full.

Name.....

Address.....

City.....Zone...State.....

New York. 22. Box, Arrow Mfg. Co., New York, using Koppers' polystyrene. 23. Cellophane wrap, Shellmar Products Corp., Mt. Vernon, Ohio. 24. Carton, Robert Gair Co., Inc., 25. Wrap, The Whiteford Paper Co., Inc., New York; labels, Tablet & Ticket Co., Chicago, Ill. 26 Display, Einson-Freeman Co., Long Island City, N. Y. 27. Carton, U. S. Printing & Lithograph Co., Cincinatti, Ohio. 29. Old Taylor: carton, America Coating Mills, Div. of Owens-Illinois Glass Co., Chicago; bottles, Owens-Illinois Glass Co., Toledo, Ohio. Carstairs: carton, Container Corp. of America, Chicago; bottle, Armstrong Cork Co., Lancaster, Pa.; Brockway Glass Co., Inc., Brockway, Pa.; Anchor Hocking Glass Corp., Lancaster, Ohio; Thatcher Glass Mfg. Co., Elmira, N. Y. Four Roses: carton, Lord Baltimore Press, Baltimore, Md. Old Grand-Dad and Monnet Cognac: cartons, American Coating Mills, Div. of Owens-Illinois Glass Co. Mount Vernon and P.M.: printed cellophane bags, Shellmar Products Corp. Old Monastery Wine: sleeve, Milprint, Inc., Milwaukee, Wis.

McCormick

(*Article continued from page 92*) of direct-mail pieces which offered special displays, sale prices, etc.

To get dealers to push Bee Brand, Willoughby evolved "McCormick's Profit Sharing Vouchers," while to interest consumers he offered the "Bee Brand Manual of Cookery." The first was a premium scheme for the dealer. For each case order the dealer got vouchers which were redeemable in merchandise—the merchandise listed in a profusely illustrated catalog. Although the value of the voucher was based on 10% of the wholesale price of the goods, it was apparently much more appealing than a cash discount, since the dealer could get many items not available in his own community. Nobody knows how many inexpensive watches—one of the chief attractions in the catalogs—were distributed by means of the voucher plan, but in a 15-year period it is estimated that close to 250,000 premiums were given out. The "Bee Brand Manual of Cookery" ran through 17 editions and although it originally sold for 10 cents, later the paper-backed volumes were worth 50 cents apiece.

In addition to point-of-sale and premium promotion, the company has been a fairly heavy direct advertiser. Newspapers have been the long-time favorite media. In 1949, however,

Hazel-Atlas Glass Company
WHEELING, WEST VIRGINIA

But can he cook?

The answer is 'Yes' as far as H-A is concerned. For our key personnel must know your food processing problems as well as their own. That's why H-A Glass containers not only show your product's goodness, but protect that goodness. Goodness that means more sales for you.

PLIABLE PLASTIC CONTAINERS

for small items . . .

Manufacturers of a wide variety of products will find these miniature plastic containers ideally suited for many purposes such as the packaging of small items, sampling, etc. They are strong and durable, exceptionally light in weight and low in cost.

These containers can be supplied either transparent or in a variety of colors. Stock sizes range from $^3/_8$" to $1^1/_2$" in diameter and from $^1/_{16}$" to $^3/_4$" in height. Other sizes can be made to special order.

We will be glad of an opportunity to work with manufacturers in adapting the use of these containers to their individual requirements. Mail the coupon below for samples, prices and individual information.

The containers or covers can also be supplied separately for use as tube ends and plugs.

Ideally suited as containers for:

- Tablets, Pills
- Pharmaceutical Products
- Biological Specimens
- Radio Parts
- Precious Stones
- Photographic Filters
- Oils
- Chemicals
- Coins
- Phonograph Needles
- Small Hardware Items
- Small Electrical Items

Falge

ENGINEERING AND MANUFACTURING CO.

4733 ELM STREET • BETHESDA 14, MD.
Representatives in Principal Cities

Mail this coupon...

NAME _____

COMPANY _____

STREET _____

CITY _____ ZONE ____ STATE ____

We will send samples and detailed information promptly!

McCormick began its first continuous advertising campaign—strictly on spices and extracts—in national consumer publications, mainly women's service magazines. Using four-color illustration, a different spice or extract is featured each month. One goal in this campaign is to emphasize the national distribution now achieved between McCormick in the East and the Schilling division on the West Coast. A further tie-in between the two brands is made possible with Schilling's new pictorial cartons, just now appearing, which use the same illustrations for the Schilling fancy flavorings.

Local newspaper advertising backs up this national campaign. The current advertising budget is reported to be close to $1,200,000.

The company has been a staunch advocate of the power of point-of-sale display. This is traced back as early as 1905 with the display cabinets offered dealers for the spices and extracts mentioned previously. Nowadays, displays are free to all dealers. Using many tier-type and jumble displays, the salesmen have a definite placement guide for all items, based on the popularity and seasonal demand of the item.

In the broad oaken lintel above a tremendous fireplace in its 16th Century English tea shop, part of the famed "Friendship Court" in which visitors start their tours through the Baltimore plant, there are carved the words: "Make the best—someone will buy it." Willoughby McCormick spoke these words back in 1889 when someone asked him what he intended to do in his new business.

The phrase sums up an unusual business philosophy which, with modern attention to the soundest principles of packaging, has paid handsome dividends.

CREDITS: *1938 package design, Jim Nash, New York. Pictorial folding cartons for fancy flavorings, Container Corp. of America, Chicago. Other McCormick cartons by Lord Baltimore Press, Baltimore, and the Guilford Folding Box Co., Baltimore. Cans, American Can Co., New York. Labels for extracts and salts, U. S. Printing & Lithograph Co., Cincinnati. Bottles and cruets, Owens-Illinois Glass Co., Toledo, Ohio, and Maryland Glass Corp., Baltimore. Closures, Phoenix Metal Cap Co., Chicago, and Aluminum Co. of America, Aluminum Seal Co. Division, Richmond, Ind. Schilling pictorial cartons, Schmidt Lithograph Co., San Francisco.*

SILK SCREENING on POLYETHYLENE

Here's the combination of luxurious appearance and permanent bonding you've been searching for. All colors and color combinations are available.

Send for a sample polyethylene bottle that has been decorated by Modern Decorating. Compare its looks . . . test the durability of the decoration yourself. Write today.

MODERN DECORATING COMPANY

Silk screen and offset printers on plastic, glass, wood and metal

4914 Hudson Blvd. West New York, N. J.
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Controlled

PACKAGE FILL
MILLIGRAMS
GRAMS OUNCES

With this Model A PAK KING filler you meter the above volumes accurately and at high speed. Spices, coffees, teas, grated cheese, cocoas, drugs, powders, insecticides and chemicals. In semi or full automatic dust free designs up to 120 per minute or more. Loose, settling or ram pressure fill. Tandem fillers for high speed or extra settling features as required for powdered sugar cartons.

Ask for catalog No. 48 or Bulletin No. 481 and 482.

WEIGH RIGHT Packaging Machinery

WEIGH RIGHT AUTOMATIC SCALE COMPANY
JOLIET • ILLINOIS • U. S. A.

FOR BETTER ANILINE PRINTING

Use no-flex PLATE ROLLS

- CAN'T FLEX OR WHIP
- GROUND FINISH INSURES ACCURACY
- FAST DELIVERY
- LOW IN COST

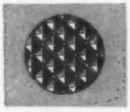
UNCONDITIONALLY GUARANTEED FOR SEVERE SERVICE

CUTAWAY SHOWS HOW EXCLUSIVE PROCESS FUSES ENTIRE JOINT INTO ONE SOLID MASS, INSURING EXTREME RIGIDITY. TUBE CONSTRUCTION REDUCES WEIGHT.

No-Flex — the new plate rolls that completely eliminate flexing and whipping — are your guarantee of a perfect impression. Special high speed lathes and equipment and improved methods of manufacture mean you get precision made rolls, quickly, and at lower cost. All No-Flex rolls are ground finished to your exact specifications and carefully inspected before shipment. The next time you need plate rolls, call Pamarco for faster service, lower cost and a better printing job.

EVENFLO ANILINE INKING ROLLS METER THE INK FOR BEST RESULTS

EVENFLO ENGRAVED ANILINE INKING ROLLERS — Eliminate ink waste, poor quality runs and rejects due to faulty inking and require no time-consuming adjustments. Evenflo Rollers meter the ink in the exact quantity needed, continuously and automatically. Proper inking — without operator attention — saves stock, ink, press down-time and operator fatigue. Using Evenflo Aniline Inking Rollers means high production quality — lower production costs.



ENLARGED VIEW OF ENGRAVED SURFACE SHOWS SCREEN THAT AUTOMATICALLY FEEDS CORRECT AMOUNT OF INK.

Quotations on plate, impression, special rolls and custom equipment supplied without obligation

PAMARCO ANILINE PRINTING PRESSES
EVENFLO ENGRAVED ROLLERS
PAPER CONVERTING MACHINERY

PAPER MACHINERY & RESEARCH, INC.
1014 OAK STREET • ROSELLE, NEW JERSEY

Fiberglas in bags

Insulating material, which was formerly sold only to large-volume industrial users, is now being packaged in small units for household applications. The material—Fiberglas Aerocor, made by the Pacific Coast Division of Owens-Corning Fiberglas Corp.—is being distributed to the retail market on the West Coast through Edward E. Conn, Inc., Los Angeles.

Selected as the package for the insulating material is a printed cellophane bag with oval ends. Each of these household packages contains 18 sq. ft. of 1-in.-thick material in a 36-by-72-in.-batt, compressed to approximately 11 by 19 in. in size.

Aerocor is a soft, resilient material made of superfine glass fibres, formed in light-weight batts. Each batt contains millions of tiny glass fibres bonded together with a thermosetting resin and the resulting material stops heat flow and reduces noise. It can be folded easily and cut with a scissors, sewed, pasted or taped. It is odorless, does not absorb odor, will not rot or decay. In each package is an "idea sheet" suggesting some of the "101 uses" to which the insulating material may be put in the home, on the farm, for automobiles and garages.

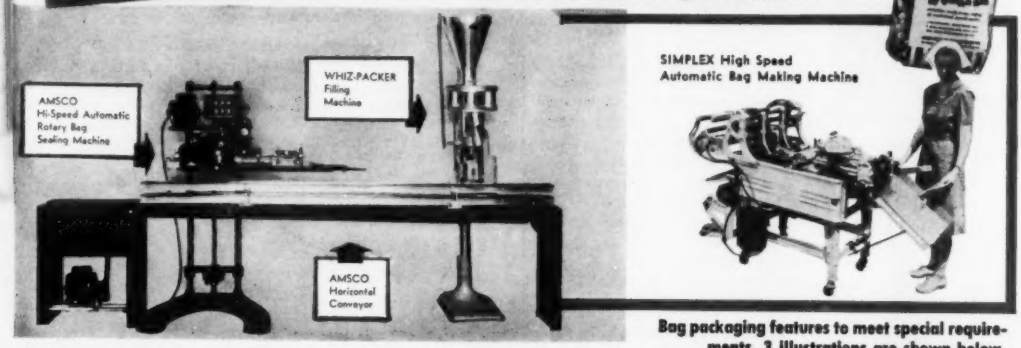
By packaging this material in consumer-sized units, the company expects to expand its market as new applications suggest themselves through the ingenuity of users.

CREDIT: *Bag, The Dobeckmun Co., Cleveland, Ohio.*

making a quality product is *your* business

AMSCO

PACKAGING EQUIPMENT


AMSCO Hi-Speed Automatic Rotary Bag Sealing Machine
WHIZ-PACKER Filling Machine
AMSCO Horizontal Conveyor
SIMPLEX High Speed Automatic Bag Making Machine
Poultry Stuffin'

Bag packaging features to meet special requirements. 3 illustrations are shown below.

If you are interested in reducing the cost of your bag packaging, an AMSCO engineer will show you how. We can supply cost-saving equipment for every operation, starting from the roll stock to the finished product . . . bag making, bag filling, bag conveying, bag sealing . . . individual units available for each operation or complete bag packaging set-ups.

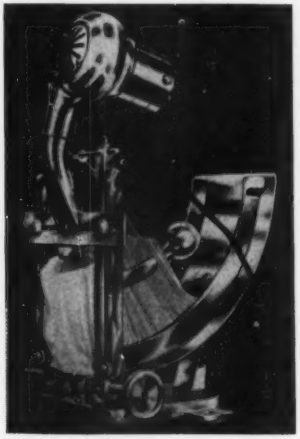
Choose AMSCO to package your product in cellophane, moraloux, diafane, foil, pliofilm, polyethylene or any other heat sealable material . . . printed or unprinted. Savings in labor and increased production pay for your AMSCO equipment in a comparatively short time. Contact AMSCO today!

Write Dept. M-5 for complete catalog.

AMSCO PACKAGING MACHINERY, INC.

31-31 48th Avenue Long Island City 1, N. Y.

Specialists in Diversified Packaging Equipment.



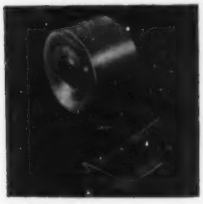
SMALL BAG OPENER

Blows bags open for the packaging of all sorts of articles. Automatic feed. Easily adjustable. Very fast. Portable.

Available in two sizes: $52.00 and $68.00 complete. Thousands in use. Write for details.

THE AKRON EQUIPMENT CO.
AKRON 9, OHIO

POLYETHYLENE PACKAGING FILM



WIDTHS 3" TO 54"

MADE ONLY BY EXTRUDERS, INC. ON THE WEST COAST

STANDARD WIDTHS AND GAUGES FOR IMMEDIATE SHIPMENT

widths	3" to 54"
gauges	1½ to 8 mils
shapes	layflat tubing gusseted tubing flat film (single ply)

Available on special order in colors, (opaque or transparent) and in special widths and gauges.

Also, vinyl, acrylonitrile vinyl and S-polymer films.

Write for price list today!

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for packaging

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candy
chemicals
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cookies
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meats
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peat moss
pharmaceuticals
poultry
powdered foods
putty
silverware
sporting equipment
vegetables

LUSTEROID OFFERS THE *Package-Applicator*

. . . double-duty plastic container that protects and dispenses your product

When your product requires an applicator, it's smart and economical to use a Lusteroid double-duty container. It gives you a package that carries your product safely to market and provides a handy dispenser for consumer convenience—all in one modern merchandising unit.

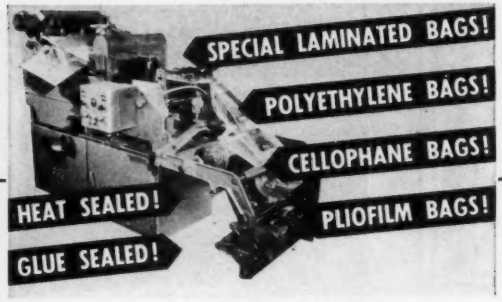
Lusteroid will make these package-applicators to your individual requirements. They are distinctive, colorful, light in weight yet strong, flexible, unbreakable. They can be printed, saving the cost of affixing labels. They cut handling, packing and shipping costs.

Lusteroid vials and tubes come in standard diameters from ¼ to 1½" and lengths up to 6". Special sizes, too. Cork, slip-on or screw-cap closures. Write for samples and new low prices.

LUSTEROID

CONTAINER COMPANY, INC.

10 West Parker Avenue, Maplewood, New Jersey



. . . ALL MADE ON EFFICIENT, LOW-COST ROTO BAG MACHINES

Wherever bags are being made of light gauge materials, Roto Bag Machines are setting new, higher standards for low-cost production, dependable operation.

Quality—Check the consistent superiority of Roto-made bags. Comparison favors the Roto.

Speed—Check the high rates at which the Roto produces better bags. The figures will convince you.

Cost—Compare the low initial cost, low upkeep and minimum waste. You'll choose the Roto!

Send for details, prices, specifications

ROTO BAG MACHINE CORP.
304 E. 22nd St. New York 10, N. Y.

NEW! IMPROVED! **RUBBER PRINTING PLATE MOUNTING and PROVING MACHINE**
. . . for fast, in-register plate-mounting off the press

- SAVES LABOR, MATERIALS
- CUTS DOWN-TIME
- UPS PRINT QUALITY

MOSSTYPE CORPORATION

Write today for descriptive brochure

33 Flatbush Ave., Brooklyn 17, N. Y.

- *Engineered* ARTWORK
- *Extra-Depth* PHOTOENGRAVINGS
- *Pre-Madeready* MOLDED RUBBER PLATES and DESIGN ROLLERS

Serving Converters and Package Printers all over the world.

More on oleo

The Food & Drug Administration has issued its interpretation of the last-minute amendment of the recently enacted legislation repealing Federal taxes on oleomargarine (MODERN PACKAGING, April, 1950, p. 262), which constitutes a new Section 407 of the Food, Drug and Cosmetic Act. As previously reported, this law requires that the oleomargarine package label have the word "oleomargarine" or "margarine" in type as large as any other lettering on it and that any inside wrapper or wrappers have the same designation in type no smaller than 20-pt.

Referring to the exterior package, the FDA's interpretation explains that in regard to the lettering of the word "oleomargarine," factors other than the mere height of the lettering must be borne in mind. Consideration must be given to the measured area of each letter and to its prominence. In both cases, each letter in the designation "oleomargarine" must at least be as large and prominent as any other lettering on the label. The ruling interprets this section of the law quite literally, holding that in cases where a large initial letter is part of the brand-name trademark, and is thus the largest letter on the package, each letter of the word "oleomargarine" must be just as large in width and height and in boldness of the letter strokes. This obviously is going to require redesign of some prominent trademarks in the field. Of particular importance is the requirement that the designation and a statement of ingredients should appear on each panel of the package label which might reasonably be the display panel at the point of sale.

Referring to the inside wrapper, the FDA says that since wrapped quarter-pound prints of oleomargarine may constitute units of retail sale, it is the intent of the law that they should be individually labeled with all the mandatory label information required by Sections 403 and 407 of the Act, just as for 1-lb. cartons. Regarding the specific provision for lettering of "oleomargarine" or "margarine" on the inside wrapper or wrappers in size no smaller than 20-pt. type, the FDA interprets this to mean that height of actual letters must be no less than $^{20}/_{72}$ of an inch.

The interpretation points out that

Above All—

Clearsite

PLASTIC SELLING CONTAINERS

Beautify Your Products

Clearsite is the Modern, Plastic Selling Container that Makes Your Prospects Want to Buy.

Endow your products with these sales advantages of Clearsite Plastic *selling* Containers: Shatterproof • Dimensional Uniformity • Featherlight (¼ Wt. of Glass) • Tasteless and Odorless • Decorated and Printed • Clear or Opaque in Gemlike Colors • Plus-Value Effect.

Write for samples and data-packed catalog material.

America's #1 Source for Plastic Containers • Established 1919

CELLUPLASTIC
CORPORATION
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ONE CALL FOR ALL!

From the basic idea to the finished Display

RIVER RAISIN PAPER COMPANY
DISPLAY DIVISION • MONROE, MICHIGAN

FOR BETTER PACKAGING!

PARTITIONS

THAT PROTECT AND SAFEGUARD YOUR PRODUCTS

•

IMMEDIATE ATTENTION
Given to Requests for Estimates

Prompt Deliveries Guaranteed

Reasonable Prices Assured

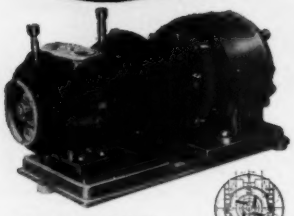
WRITE, PHONE, WIRE for QUOTATIONS on YOUR REQUIREMENTS

Manufacturers of Paper Board Partitions

PETER PARTITION CORP.

19-21 HEYWARD STREET
BROOKLYN 11, N. Y.
Telephone: TRiangle 5-4033

NEW KRAISSL AIR PUMPS for SUCTION and PRESSURE



Eliminate Oil Vapors from Discharged Air

The new Kraissl Class 23 pumps completely eliminate undesirable oil vapors from discharged air. In many operations, this means a tremendous saving to you—in time, materials and industrial health. Pumps are dry lubricated—displacement blades take up their own wear. Positive, fan-cooling for continuous high performance. Available with double extended shaft for group installations from single power source. Performance data: 1750 RPM, but not limited to this speed. Capacities from 5 cfm—20 cfm, for single units; larger capacities by group drive.

Kraissl Class 23 pumps are specifically designed for all packaging and printing machinery; and similar applications where air pressure or suction, without discharge oil, is preferable.

- Suction feed or pick-up of paper, cardboard, tin, etc.
- Container - filling: bags, bottles, tubes, etc.
- Automatic handling on conveyor systems
- Packing in shipping crates and cases
- Printing presses and vacuum printing frames
- Vacuum canning machines
- Vacuum holding chucks
- Ideal for handling food products, beverages, pharmaceutical preparations—where rigid sanitation standards are mandatory.

FREE

Write today for our new Bulletin A-1399 on Class 23 Air Pumps.

Kraissl Co. Hackensack, N. J.
Please send your bulletin A-1399

Name_____

Company_____

Address_____

City_____ State_____

KRAISSL CO. Inc.
309 Williams Ave., Hackensack, N. J.

the special provisions for oleomargarine added to the Act by the new Section 407 are in addition to, and not in lieu of, any other requirements of the act. Thus, under the existing Section 403, oleomargarine must conform to the definition and standard of identity for oleomargarine provided by Section 401 of the Act (21 CFR 45). While under provisions of the existing identity standard for oleomargarine, only certain of the optional ingredients authorized by the standard are required to be declared on the label, the new Section 407 requires, in the case of colored oleomargarine, "a full and accurate statement of *all* the ingredients," subject to existing requirements as to conspicuousness.

The complete FDA statement was published in the Federal Register April 13. Details should be carefully checked by all those concerned with oleomargarine packaging.

POPAI meeting

Reporting attendance of more than 10,000 at the Exhibit and 1,200 at the Symposium-Luncheon, the Point-of-Purchase Advertising Institute counts as one of its most successful affairs the Fourth Annual Symposium on Display Advertising held at the Waldorf-Astoria Hotel, New York, April 11-12.

The exhibits of 52 display manufacturers filled three large rooms on the ballroom floor of the Waldorf and exhibitors said that inquiries indicated a rising tide of interest in the newer techniques for display of packaged merchandise, particularly motion and flasher devices, "talking" displays and the new full-color, backlighted transparencies. It was estimated that the point-of-purchase display industry will do a $700,000,000 business this year.

Featured speakers at the luncheon were Arthur H. Motley, president of Parade Publications, Inc., and John E. Wiley, chairman of the board of Fuller & Smith & Ross, who presented a playlet dramatizing "Dynamic Distribution." The master of ceremonies was William L. Stensgaard of W. L. Stensgaard & Associates, Chicago.

Edward K. Whitmore of Oberly & Newell Lithograph Corp. was elected president of POPAI to succeed John M. Palmer Associates, who becomes chairman of the board.

No more hunting for quality cans ...just see **EMPIRE**

Like hundreds of our satisfied customers, you'll find that your search for a low-cost, reliable source for fine lithographed cans is over when you come to Empire.

You'll like Empire's appeal designs . . . you'll like the sound Empire can construction . . . clear, brilliant Empire lithography is sure to please you. And what's more, you'll certainly appreciate Empire's dependable deliveries.

Just forget the headaches you *used to have* when purchasing lithographed cans. Let Empire show you how simple, fast and uncomplicated buying them can be. Ask for an estimate on your needs today.

Empire Can Corp.
NO OTHER CONTAINER PROTECTS LIKE THE CAN
220 Ashford St.
Brooklyn 7, N. Y.
APplegate 7-4701

Swift's Glumaster
makes production music

There's an increasing demand for recorded music. Records have even greater sales appeal when packaged in practical, attractive albums. The slick-looking Mercury Albums pictured above were made by the Chicago Album & Specialty Co., Chicago, Ill. Chicago Album uses Swift's Glumaster to help give their products a smooth, trim-cornered appearance.

Non-warp Glumaster has the right qualities to make Chicago Album's casemaking system hum. It melts quickly and has the needed initial tack and proper set so that the albums can be assembled rapidly. It helps to give smooth, flat covers, free from dog-eared turn-ins.

To make a better box, a more attractive package, use Swift's Glumaster Non-warp Glue. This economical non-warp comes in 5# cakes packed in 80# fiber containers. Just clip the coupon below for a trial shipment of Glumaster at the quantity price.

Call **SWIFT** *for the right* **GLUE**

Swift and Company
Adhesive Products Department MP-3
Chicago 9, Illinois

☐ Please send your *80#* introductory trial shipment of Glumaster at the quantity price (17½¢ f.o.b. nearest adhesive plant) to be tested for use in our operations. We understand if not fully satisfactory, it may be returned for credit at your expense. *(This offer expires July 15, 1950)*

Please send me full details about Swift adhesives for:

☐ Folding boxes ☐ Laminating ☐ _____
☐ Tite-wrap ☐ Set-up boxes ☐ _____

Name _____

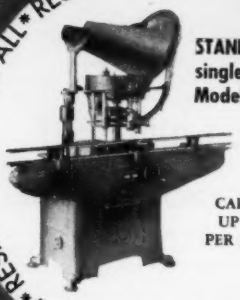
Firm Name _____

Address _____
(Street & No.) *(Zone)* *(State)*

RESINA CAPPERS

A model for every purpose . . .
A speed for every need!

RESINA TOPS THEM ALL * RESINA TOPS THEM ALL * RESINA TOPS THEM ALL *



STANDARD single Head Model

CAPACITY UP TO 60 PER MINUTE

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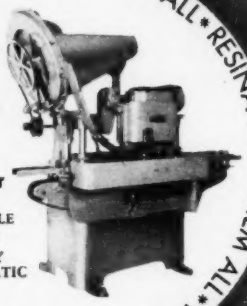

HIGH SPEED straight line screw capper

FLEXIBLE
FAST
FULLY
AUTOMATIC

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SEMI AUTOMATIC CAPPER

Not an ordinary cap tightener but a real Semi Automatic Screw Capper

Requires no Operator

other Models available

RESINA AUTOMATIC MACHINERY COMPANY, INCORPORATED

COURT & CREAMER ST., BROOKLYN 31, NEW YORK

FROM A ROLL OF STOCK

• Films • Foils • Papers

TO A FILLED AND SEALED SALES-WINNING PACKAGE

Automatically... At Low Cost!

(1) *Makes bag from roll of paper, film, or foil.*
(2) *Fills and counts or measures the contents.*
(3) *Finishes up to 36,000 packages per 8 hour shift.*

Whether your product is solid, liquid, powder, or multiple items, the Bartelt Packager will place the desired quantity in a bag made of any type of heat sealing material. Various types of feeds are available to handle products from hardware to soup mix.

Hardware
Powders
Liquids
Multiple Parts
Foods

Write for details today

BARTELT ENGINEERING COMPANY
323 Madison St., Rockford, Illinois

Announcing a new

CUT-OFF

IT'S ACCURATE

Send for full particulars

Machinery and Products Engineering Corp.

Paper Conversion Machinery

3630 Frankford Ave. Philadelphia 34, Pennsylvania

CUSTOM LAMINATING AND COATING

Films, Foils, Fabrics, and Papers for all purposes *Plus* these Standard Products

FUNCTIONAL:

- Heat Sealing Foils
- Heat Sealing Tapes
- Barrier Materials, Greaseproof
- Barrier Materials, Moisture vapor proof
- Jar Cap Liner
- Electrical Insulation
- Laminated Foil and Board
- Locker Paper

DECORATIVE:

- Foil Paper, colored and embossed
- Acetate to paper in colors
- Leatherette

THE FLOYD A. HOLES CO.
1080 Northfield Road
BEDFORD, OHIO

Lard in cellophane

Lard or vegetable shortening is now being automatically packed in printed cellophane bags made by machine, reportedly at a large saving. The machine (see "Automatically in Cellophane," MODERN PACKAGING, April, 1950, p. 127) had heretofore been used only for free-flowing products. Now Anderson, Clayton & Co., Monterrey, Mexico, packages its Inca vegetable shortening by the new method.

The machine forms the bag from roll-fed printed moistureproof #300 duplex cellophane. Filling is accomplished on the same machine by means of a piston-type filler which measures off the correct amount of shortening and injects it into the bag. The top of the bag is then double heat sealed, forming a virtually airtight container. Production speed of the machine is 30 bags per minute. One-pound, two-pound and three-pound units of the shortening can be handled on the equipment.

The method by which the machine forms and seals the square-bottom bag gives it remarkable strength. It is both heat and glue sealed. It is said to be the strongest cellophane bag manufactured and can be dropped several feet without bursting. In addition to being unusually sturdy, this package offers the advantage of being square in shape, so that it occupies a minimum amount of space in the retail store refrigerated display cases, as well as in the home refrigerator.

CREDIT: *Pakit machine, Package Machinery Co., Springfield, Mass.*

Searching for the perfect solution to your Packaging Paper Problem?

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MATTHIAS LINE

The very paper for which you are searching may be right in our stock.

Over 1,000 Packaging Papers to choose from.

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Are you receiving the Matthias NEWS Paper? It's packed with facts and fancy paper samples. Drop us a line, on your letterhead, and you'll be placed on our list at once.

NEW WARE Delayed Action HEAT SEAL

The McLaurin-Jones Heat Seal line of label papers is now available for *delayed-action* heat seal applications. For the McLaurin-Jones research laboratories have perfected a new delayed-action adhesive with exceptional performance qualities. You can have samples of the new Ware delayed-action type of heat seal for the asking.

A Complete Line of Gummed and Coated Papers

Waretone — a deluxe quality sheet — mirror finished; *Old Tavern* — in gold or platinum; *Guaranteed Flat Gummed* — in white or colors; *Plated* — white or colors, gummed or ungummed; *Gummed Sealing Tapes* — Kraft or colors, printed or plain; *Veneer Tapes* — various grades, cloth or plain and perforated paper; *Gummed Cambrics; Sisal Tape; Gummed Hollands; Box Stay; Electrical Tapes.*

McLAURIN-JONES COMPANY

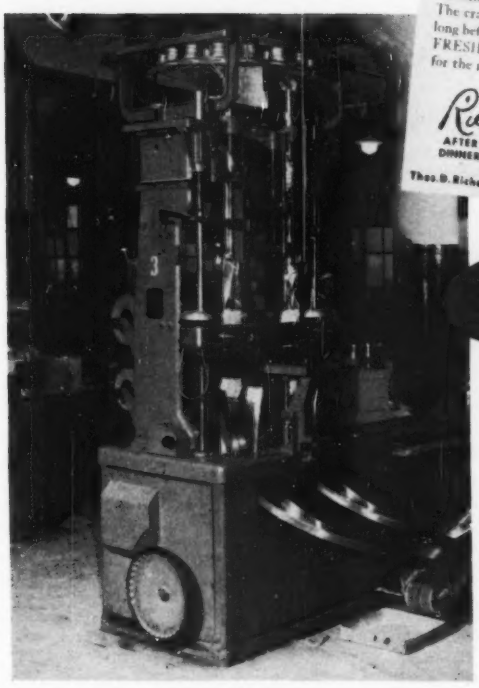
BROOKFIELD MASSACHUSETTS

OFFICES: NEW YORK • CHICAGO • LOS ANGELES

McLAURIN-JONES Product

NATURALLY...

Campus Choice for "Most Popular" Sweet
IT'S Richardson's MINT*
No. 1 hit on the "Candy" Parade is smooth, creamy Richardson's Mint. The craving for sweets is satisfied long before over-indulgence. Always FRESH—never sold in bulk. Look for the name Richardson's
U-ALL-NO
Richardson's
AFTER DINNER MINT
Thos. D. Richardson Co., Phila. 24, U.S.A.
10¢



S&S STOKESWRAP INSTALLATION AT THOS. D. RICHARDSON CO., PHILA.

IT'S **STOKESWRAPPED**

Wherever "profitable packaging" is desired . . . specify STOKESWRAP. The STOKESWRAP Automatic Packaging Machine is capable of speeds up to 3600 packages per hour, using cellophane or other heat sealing films from the roll. This high speed machine automatically makes the bag, fills and heat seals at one operation.

Many users of the STOKESWRAP find it a profitable investment. Let us show you how it can lower your unit cost. Write for complete information.

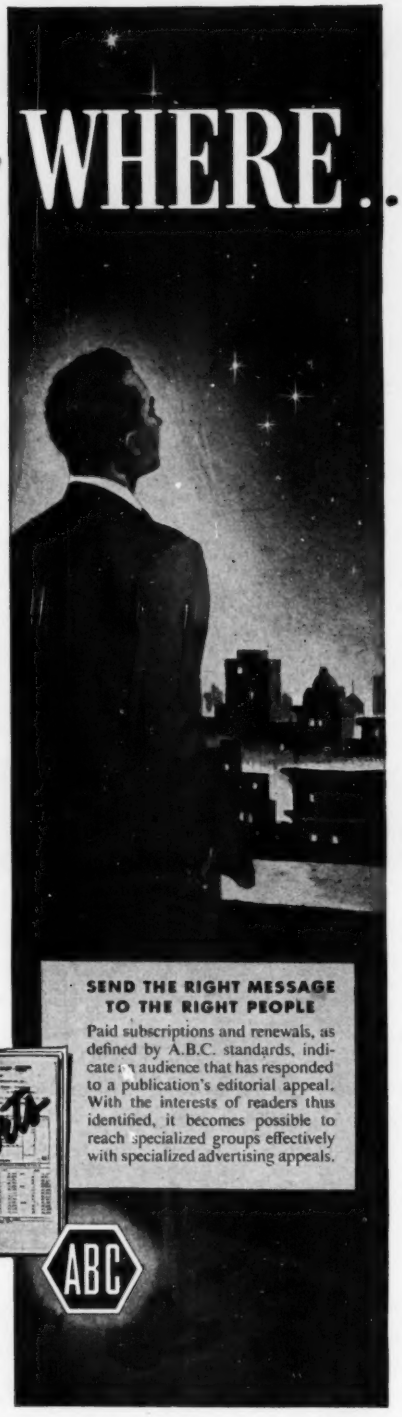
STOKES & SMITH Co

PAPER BOX MACHINERY — PACKAGING MACHINERY

Subsidiary of Food Machinery and Chemical Corporation

FRANKFORD, PHILADELPHIA, U.S.A.

Exclusive West Coast Distributor:
Anderson-Barngrover Division of FMC
San Jose 5, California


SEND THE RIGHT MESSAGE
TO THE RIGHT PEOPLE
Paid subscriptions and renewals, as defined by A.B.C. standards, indicate a audience that has responded to a publication's editorial appeal. With the interests of readers thus identified, it becomes possible to reach specialized groups effectively with specialized advertising appeals.
A B C Reports
ABC

Oh! WHERE... *is my wandering ad tonight?*

THERE are two ways to buy advertising space. One is the guesswork-opinion method. The caption above is the mournful song of an advertiser who is still selecting media the way it was done before World War I, when there were no standards for the circulations of published media and when there was no accepted and approved method of auditing circulations. In those days, advertisers O.K.'d their proofs and sent out their advertising with a prayer that some of their sales messages would find their way to market.

The other way to buy space is the factual, know-what-you-get-for-your-money method. Today advertisers can start their investments on a basis of facts by selecting media with the help of the information in the reports issued by the AUDIT BUREAU OF CIRCULATIONS. This cooperative and nonprofit association of 3300 advertisers, advertising agencies and publishers, organized in 1914, has established standards that make it possible to evaluate the circulations of published media. The A.B.C. maintains a large staff of experienced and specially trained circulation auditors who make annual audits of the circulations of publisher members. A.B.C. reports give the facts thus obtained.

Here are some of the audited facts about business papers that A.B.C. reports tell the advertiser:

—how much paid circulation;
—how much unpaid;
—an occupational or business breakdown of subscribers;
—where they are located;
—how much subscribers pay;
—whether or not premiums are used;
—how many subscribers are in arrears;
—what percentage of subscriptions are renewed.

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MODERN PACKAGING

122 E. 42nd Street New York 17, New York

A.B.C. REPORTS—FACTS AS THE BASIC MEASURE OF ADVERTISING VALUE

Whipped Cream sprays out to decorate Cakes and Desserts.

Plastic coating sprays out to preserve woodwork.

Mothproofing Spray protects clothes quickly and easily.

SENSATION OF THE PACKAGING INDUSTRY

CROWN SPRA-TAINER

Lacquer sprayed on Silverware keeps finish bright without polishing.

The Original and Leading Light Weight Propulsion Can

has **NO-SIDE-SEAM NO-TOP-SEAM**

Everyone is talking about the new products that spray or come from cans under pressure—Whipped Cream, Plastic Sprays, Insecticides, Deodorants, Air-Conditioners, Perfumes, Colognes and others. But the big point is—most of the cans used are Crown Spra-tainers, for Spra-tainer was the First and is still the Number One light-weight propulsion can. Spra-tainer has no-side-seam—no-top-seam. This is made possible by Crown Can's exclusive patented method of producing *seamless construction.* Spra-tainer holds *more pressure, has less leakage.* If your product is liquid or sprays, find out what Spra-tainer can do for you. Ask to have a Crown Sales Representative call.

Several different Dispensing Valves are Available; but make sure the body is a Spra-tainer. Press the Top and It Sprays!

CROWN CAN

One of America's Largest Can Manufacturers

Plants at Philadelphia, Chicago, Orlando. Branch Offices: New York, Baltimore, Pittsburgh, St. Louis • Division of the Crown Cork & Seal Company

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FOR SALE: 3-WOEHR Automatic Crimping, Embossing & Doming Presses with large quantity of round & Oval crimping dies. 1-Oval Lathe Chuck for turning Oval Dies. 1-Dial Doming Press. 1-57" OSWEGO Paper Cutter. 1-45" Knowlton Hot Waxer. American Graphic Arts Machy. Co. 36 Plaza Street, Brooklyn 17, N.Y. Ulster 7-2941.

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FOR SALE: 1—Standard Knapp #429 self-adjusting Gluer-Sealer, minimum 5½" high, 7½" wide, maximum 10" high, 13" wide, 25' Compression Unit. Priced at less than half new cost. 2—Stokes and Smith auger G1 Powder Fillers. 1—Knapp Wraparound 3B Labeller. Only a partial list. Send us your Inquiries. Consolidated Products Co., Inc., 16-20 Park Row, New York 7, New York. Phone: BArclay 7-0660.

FOR SALE, Packomatic dual stool carton sealer for packaging 11 and 15 oz cartons, complete with compression units, motors, conveyors and presses. Bonner Packing Co., Brix Bldg., Fresno, California.

FOR SALE: One, Triangle Make, Model SHA, Automatic Net Weigher and Model SA, Semi-Automatic Top and Bottom Carton Sealer. Complete with Automatic Package Control. In almost new condition. Cost over two thousand dollars new. Price, five hundred dollars. One, Model SR, Triangle Make, Sealing Machine with Unscrambling Table. In good condition. Price, fifty dollars. One, Triangle Model R, Portable Carton Gluer and Sealer. In good condition. Price, twenty-five dollars. All prices F.O.B. Memphis Casting Works, Inc. P. O. Box 1622, Memphis, Tennessee.

FOR SALE Corley-Miller Wrapping Machine practically new—complete with motor, standard range, folding fingers, foot-trip, underlapping attachment, pull through attachment and a 24" sheeter attachment. Will sacrifice. Teller, Levit & Silvertrust, 1 N. LaSalle St., Chicago 2, Illinois."

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MISCELLANEOUS

WANTED: Plastic scrap and rejects in any form. Cellulose Acetate, Butyrate, Polystyrene, Vinyl Polyethylene, etc. We pay top prices for clear, colored and printed scrap in any quantity. Box 781, Modern Packaging.

ROTOGRAVURE AND ANILINE PRESSES. Tissue to .020 board. One to four colors. Can handle long runs and print up to 62" width. Full finishing equipment. Foil. Cellophane, Glassine and other packaging materials. Your Inquiries Solicited. Camotone, Inc., Mamaroneck, N. Y. Telephone: Mamaroneck 9-5050-1-2.

REPRESENTATION WANTED. Line wanted by Sales Representative now calling on diversified trades, i.e. Radio, Television, Luggage, Cosmetics, Jewelry, etc. Presently set up with excellent office facilities in mid-town Manhattan. Now covering New York City and surrounding territory. Box 966, Modern Packaging.

CLEAR PLIOFILM for sale. 40 rolls (Approx. 730 lbs.) 9¼", 140 gauge. Will sell entire stock @ 62¢ per lb. Associated Activities, Inc., 123 N. 2nd St., Minneapolis, Minnesota.

OFFERING AT greatly reduced price 1500 gross of 15½-ounce jars, White finish, with caps. Also offer large inventory bottles and caps for food and cosmetic industry at prices much below list. We buy excess inventory. United Bottle Supply Corp., First Street & Astoria Blvd., Long Island City 2.

MACHINERY WANTED: Printing plant desires to purchase a machine that will put a 4" Kraft or Heat Sealed Band around pads. Machine to be readily adjustable for from one to ten pads. Size of pad to vary from 3 x 5 inches to 8½ x 11 inches. We prefer a standard machine rather than one specially made. Braceland Brothers, Inc. 401 N. Broad, Phila.

EMBOSSER WANTED. Used—Roll to Roll Embosser with Alligator and other designs, to handle wrapping grades up to Basis 60 and 36" widths. Box 964, Modern Packaging.

HELP WANTED

SALESMAN OR CONCERN handling polyethylene, calling on industrial accounts to carry additional, non-conflicting line of specialized polyethylene fabrications. Specializing in special shapes and very small bags, not practical from tubing. Please state areas covered and fabricator you are representing. Replies confidential. Box 963, Modern Packaging.

HELP WANTED Sales representative wanted by one of the country's largest packaging concerns, located in the East, to handle transparent acetate containers, and plastic displays, as well as special items fabricated of vinyl film. Must be aggressive, have creative ability and packaging background. Unlimited opportunity, exclusive territory, no objection to allied non-competitive line. Write Box 962, Modern Packaging.

SALES REPRESENTATIVES Manufacturer of well-known specialty closure for cans offers attractive commission proposition to men now calling on the packaging trade. Leads furnished from national advertising. Territories available include Texas, Missouri, Tennessee, Kentucky, Georgia, Florida, North and South Carolina, Alabama, Louisiana, Kansas, Minnesota, also Montreal and Toronto, Canada. Box 960, Modern Packaging.

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If there is any feature in this or other issues of Modern Packaging which can be of value to you in reprint form, ask for quotations *right now.*

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CAMEO
DIE & LABEL CO.

CREATORS OF FINE LABELS
TAGS AND PACKAGES

154 WEST 14TH STREET
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SEE
THE
RED PAGE!

For a quick and easy way to get valuable free data on new equipment and materials, just turn to pages 171-172.

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The Carter's Ink Company of Cambridge, Mass., one of America's leading makers of Inks, Carbon Papers, Typewriter Ribbons, comments favorably on WRAP-KING performance and efficiency.

WRAP-KING can show you how "Perfect Packaging" . . . will effectively CUT YOUR PACKAGING COSTS UP TO 75%.

WRAP-KING's engineered construction will answer your every packaging need. Completely automatic, WRAP-KING will provide uniform packaging and is, of course, non-injurious to fragiles. WRAP-KING's space requirements are of average "office desk size." Simplicity in operation means quick change-over time . . . minimum maintenance care. Interchangeable parts supplied for varied packaging processes.

Your letterhead brings an illustrated brochure on WRAP-KING's "Perfect Packaging." Write for yours today!

We invite you to discuss your packaging problems with our representatives, or you may write us direct.

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Modern packaging

A BRESKIN PUBLICATION

Published by Modern Packaging Corp.
122 East 42nd Street, New York 17, N. Y.

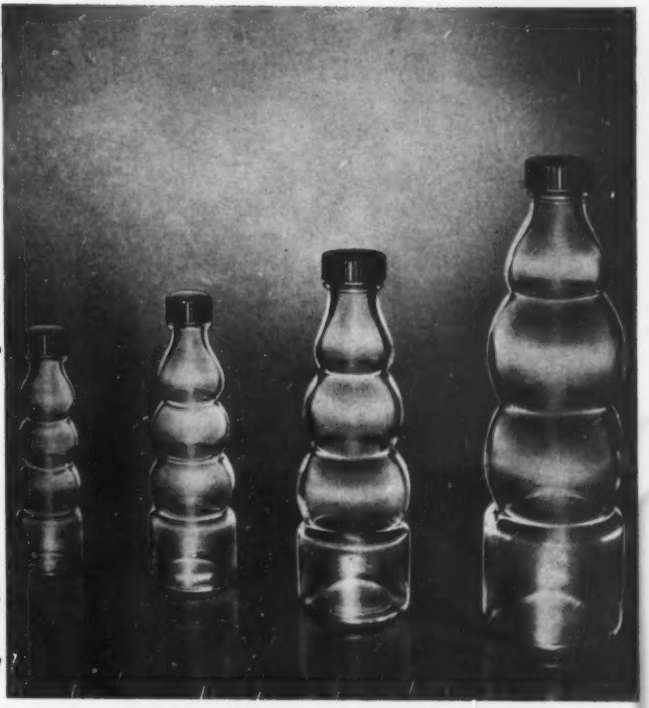
The ROUND BALL BOTTLE

new... versatile... distinctive!

2,4,8,16 Oz.
Available Now

W. BRAUN *co.*

300 N. CANAL St. CHICAGO 6
595 FIFTH Ave. NEW YORK 17



AT LAST!

A MACHINE THAT
ATTACHES LABELS and HEAT SEALS
IN ONE OPERATION

Label Seal-It is the first machine ever devised to eliminate the slow and costly hand operation of folding labels and placing over tops of bags before sealing.

It can be adjusted to secure a half-fold on a small tent-style label and, if desired, will also fold over top of bag before label is attached — all in one operation. Amazing production savings are now possible with this heavy-duty heat sealer with automatic phantom feed that speeds production. Label Seal-It can also be used interchangeably for ordinary heat sealing of bags without labels.

HEAT SEAL-IT CO.
4316 Lancaster Ave., Philadelphia 4, Pa.

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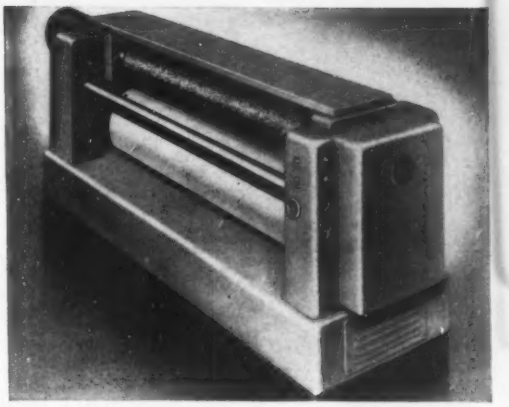
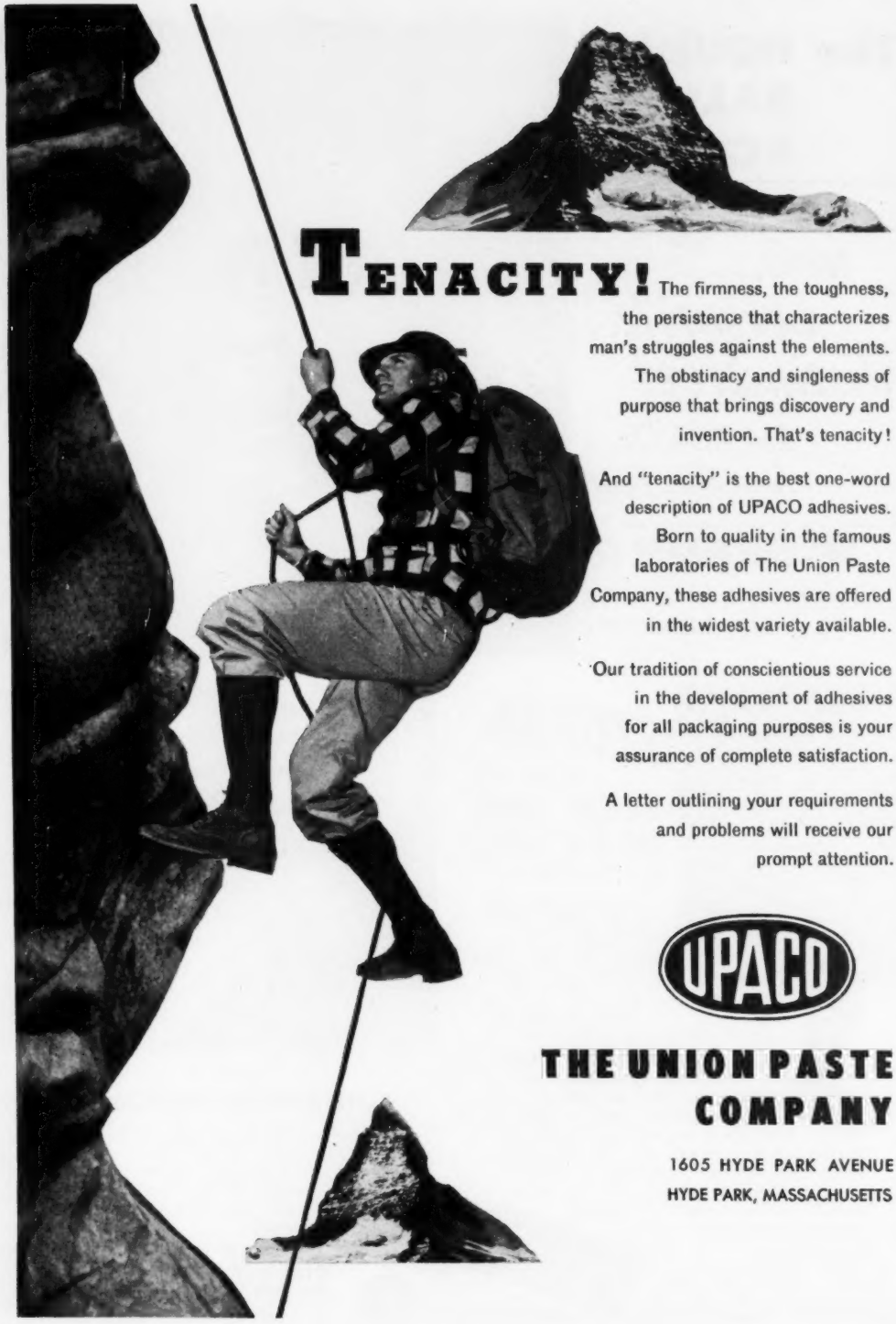


CONTROLLED EMBOSSING

The two-roll calender type embosser here shown emphasizes rigidity, correct alignment and even pressures, so essential to perfect embossing. Get the facts—full particulars on light distinctive features that make this embosser something quite unusual.

WRITE, WIRE OR PHONE
DILTS MACHINE WORKS
DIVISION OF THE BLACK-CLAWSON COMPANY, HAMILTON, OHIO
FULTON, NEW YORK



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The firmness, the toughness, the persistence that characterizes man's struggles against the elements. The obstinacy and singleness of purpose that brings discovery and invention. That's tenacity!

And "tenacity" is the best one-word description of UPACO adhesives. Born to quality in the famous laboratories of The Union Paste Company, these adhesives are offered in the widest variety available.

Our tradition of conscientious service in the development of adhesives for all packaging purposes is your assurance of complete satisfaction.

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UPACO

THE UNION PASTE COMPANY

1605 HYDE PARK AVENUE
HYDE PARK, MASSACHUSETTS

WE believe in building a carton to fit the *individuality* of the product . . . in size, shape, protective qualities and merchandising impact! The versatility necessary to design and build a carton that will bring out the *best* that is in every product comes only with years of diversified experience in carton making . . . we have that experience, plus the finest in paperboard and carton making equipment.

Michigan CARTON CO.

BATTLE CREEK, MICHIGAN

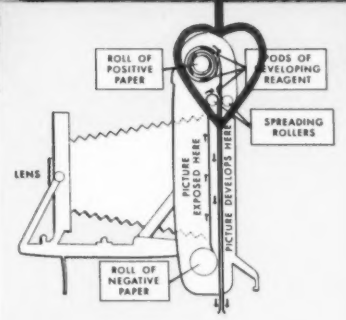
the unseen *Package* that makes Polaroid Cameras *Click*

Photographic history was made by the new Polaroid Land Camera, which takes a picture and delivers a finished print in 60 seconds.

Packaging history was made too. Polaroid had to have a special material for the tiny, unseen package that is the heart of the Land Camera. Nothing like it had ever been seen before. It had to keep the developing compound perfectly sealed against the two deadly enemies of all photographic developers — air and moisture. But, at the proper moment, it had to release it easily and instantly to create the picture.

Shellmar is proud of its part in producing the package that makes the new Polaroid Land Camera "click."

We invite your inquiry for a Shellmar package that may solve a manufacturing or merchandising problem for your product.



Each of these "pods" holds just enough jellied reagent to make a Polaroid picture . . . completely protected from water vapor and oxygen by a new type of laminated packaging material produced by Shellmar to meet what Polaroid calls "a very difficult set of specifications."

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